DOCUMENT RESUME

ED 325 211 PS 019 111

AUTHOR Saraswathi, T. S., Ed.; And Others

TITLE Human Development, Early Childhood Care and Education and Family Welfare. Compendium of Researches, Volume III.

INSTITUTION Baroda Univ. (India). Dept. of Human Development and Family Studies.

PUB DATE Jun 86

NOTE 115p.

PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC05 Plus Postage.

DESCRIPTORS *Day Care; Day Care Centers; *Disabilities; *Early Childhood Education; Females; Foreign Countries; Nutrition; *Physical Development; *Population Education; Poverty; Rural Areas; Tribes; Urban Areas; *Welfare Services

IDENTIFIERS Family Welfare Centers; *India; Special Needs Children; Status Attainment

ABSTRACT

This volume encompasses 44 research studies that were conducted mainly by graduate students in the Department of Human Development and Family Studies, M.S. University of Baroda, India. The studies are organized in six broad categories: (1) child care in tribal, rural and urban poor, and institutional settings; (2) early childhood care and education, including the topics of home-based and school-based programs, assessment, training of early childhood workers, educational play materials, and a special ICDS program; (3) children with special needs, including the topics of diagnoses and programs for children with learning difficulties and disabilities, hospitalized children and their caretakers, and an integrated program for developmentally handicapped children; (4) population education and family welfare, including the topics of the functioning of family welfare centers, and training needs of child and family welfare workers; (5) the status of women; and (6) nutritional status and secular trends in regards to physical development. (RH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED325211

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☐ This document has been reproduced as received from the person or organization originating it.
☒ Minor changes have been made to improve reproduction quality.
● Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

HUMAN DEVELOPMENT,
EARLY CHILDHOOD CARE AND EDUCATION
AND FAMILY WELFARE

Compendium of Researches Vol. III
Department of Human Development and Family Studies
M. S. University of Baroda, Baroda

Edited by

T.S. Saraswathi

Assisted by

Varsha Shah
Anjoo Sikka

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
T.S. Saraswathi

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

PS019111

CONTENTS

Page

ACKNOWLEDGEMENT 2

INTRODUCTION 3-9

I. CHILD CARE IN VARIED SETTINGS

A. TRIBAL SETTING 10-11

B. RURAL AND URBAN POOR SETTING 12-17

C. INSTITUTIONAL SETTING 17-19

II. EARLY CHILDHOOD CARE AND EDUCATION

A. HOME BASED PROGRAMS [illegible]27

B. SCHOOL BASED PROGRAMS 27-28

C. ASSESSMENT 28-40

D. TRAINING OF EARLY CHILDHOOD CARE & EDUCATION WORKERS 40-51

E. EDUCATIONAL PLAY MATERIALS 51-52

F. SPECIAL ICDS PROGRAM 52-54

III. CHILDREN WITH SPECIAL NEEDS

A. LEARNING DIFFICULTIES AND DISABILITIES: DIAGNOSES AND PROGRAMS 55-70

B. HOSPITALIZED CHILDREN AND THEIR CARETAKERS 70-73

C. DEVELOPMENTALLY HANDICAPPED CHILDREN: AN INTEGRATION PROGRAM 74-77

IV. POPULATION EDUCATION AND FAMILY WELFARE

A. POPULATION AND FAMILY WELFARE EDUCATION 78-85

B. FUNCTIONING OF FAMILY WELFARE CENTRES 86-90

C. TRAINING NEEDS OF CHILD AND FAMILY WELFARE WORKERS 90-100

V. STATUS OF WOMEN 101-103

VI. PHYSICAL DEVELOPMENT

A. SECULAR TRENDS 104-105

B. NUTRITIONAL STATUS 105-107

ACKNOWLEDGEMENT

We wish to acknowledge the :

- assistance from the members of the editorial committee, Professor Amita Verma, Professor Veena Mistry, Dr. Prerana Mohite, and Ms. Neena Kapoor. Their critical feedback helped us refine the contents.
- participation by the post graduate students of the scientific writing course (1985) in the preparation of some eight summaries.
- contribution of each master's student and research guide whose work lends substance to this compendium.
- facilities provided by the UGC-DRS scheme to the Department of Child Development through junior research fellowships, typing assistance and other contingency grants.
- efficient services offered by typists Mr. Mahesh Soni and Mr. C.V. Valodhkar, and technican Mr. Mukesh Gajjar to move the compendium through the stages of typing, cyclostyling and binding.

Baroda.
June 1986.

T. S. Saraswathi
Varsha Shah
Anjoo Sikka

INTRODUCTION

We are pleased to offer to the reader the third volume of the Compendium of research studies conducted at the Department of Human Development and Family Studies, M.S. University of Baroda. Positive feedback received for the two earlier volumes (edited by T.S. Saraswathi, 1982 and V. Mistry, 1986) as well as the synopses of researches posted yearly to interested departments, gave us the incentive to undertake the preparation of Vol. 3, amidst the usual professional and personal pressures. Volume 3 covers the period 1981 to 1986 and encompasses 44 researches in the four broad research thrust areas in the department, namely, Human Development, Early Childhood Care and Education, Family and Child Welfare, and Family Studies. The financial support received through the UGC Scheme of Department Research Support undoubtedly facilitated the work.

While a large majority of the reported studies are the outcome of masters and doctoral dissertations, in keeping with our strategy of planning a co-ordinated series of studies in a given area, most of the researches fall under a broader umbrella of a project. The research projects directed by the faculty continue to receive support from varied sources: Indian Council for Social Science Research; National Council of Educational Research and Training; National Institute of Public Co-operation and Child Development, and the Ministry of Social Welfare/Human Resource Development, besides the Post Graduate Research Council of the M.S. University of Baroda. Research proposals are on the anvil for major funding support in the current year.

The World View

We wish to draw to the reader's attention the intangible philosophical world view (call it the model of man and his environment) that provides the backdrop against which the studies have evolved and provided a direction to research activities in the department. It includes :-

1. **Focus on the poverty/disadvantaged context :**

   By conscious choice, there is continued interest in working in the disadvantaged setting as reflected not only in the program of research activities but also in the extensive program of community outreach through student field placement, which forms an integral part of the curriculum at all levels. Whenever possible, research and action programs are interwoven to provide a feedback loop supporting each other.

2. **Attention to social relevance and application orientation :**

   There is a continuation of this trend initiated in the seventies towards gearing research to topics with social relevance and application orientation. Encouraged by the favourable reception to the trend initiated in the seventies, we have moved towards broader social policy related researches (or those with implications for social policy) instead of using our research skills to merely work out immediate solutions to pressing micro level problems.

3. **Understanding varied behavior settings :**

   Basic research has not however, been relegated entirely to the background. Data regarding children's development in varied settings provide the interface between basic and applied research, providing both baseline data and ecological validity to planned intervention programs.

4. **Attention to tool construction and standardization :**

   Focus on ecological validity sensitized us to two important concerns in the field: (a) the need to understand the environmental context in which the child develops; and (b) the fallacy of continued reliance on tools developed in an alien cultural context. This has resulted in increasing investment of research time in developing and standardizing assessment tools and establishing local norms wherever feasible.

5. **Co-ordinated program of research studies :**

   Once more in keeping with the trend established in the department in the late seventies, research in the department is planned under the broad umbrella of research projects, fitting in masters and doctoral research work under the same. This has paid rich dividends resulting in : (a) establishment of a firm knowledge base in specified areas; (b) co-ordination of action programs from the planning to evaluation stage; and (c) consolidation of work completed in the form of preparation of monographs (see list at the end of Introduction).

Kinks, Gaps, and Rough Edges

While one could wax eloquent about the positives (and go on an ego trip!), there is no denying that there remains much scope for improvement. The lacunae that call for attention include:

1. Focus on primary data and micro level studies with the consequent absence of secondary data analyses, and macro level studies.
2. Dearth of follow-up studies and studies using longitudinal research designs.
3. Hesitation in using any kind of complex statistical analyses even if the data warrants the same.
4. Absence of intrinsic motivation to publish and disseminate information even on innovative projects that have interesting and useful results. (In fact one could term this as an absence of professional committment/ obligation!)

Brief Overview of Studies Reported in the Present Volume

The studies included in this volume have been placed under six broad categories:

1. Child Care in Varied Settings.
2. Early Childhood Care and Education.
3. Children with Special Needs.
4. Population Education and Family Welfare.
5. Status of Women.
6. Nutritional status and Secular Trends in Physical Development.

The major contributions made by the various studies in each section are summarized herein:

Child Care in Varied Settings

1. Observation of practices related to feeding, weaning, toilet training, sleep and play in the tribal setting indicates that child care is a relaxed affair with the parents holding an accepting and protective approach towards their child. Inadequate utilization of welfare services in general and health services in particular remains a cause for concern.

2. A great deal of similarity exists in the socialization practices among the urban and rural poor. Naturalistic observations combined with unstructured interviews serve to highlight that the time scheduling and daily life activities of boys and girls in both the settings project the deeply embedded cultural milieu and the constraints of the poverty setting.

3. Child care in the institutional setting is characterized by the inadequacy of the physical facilities, a highly neutral pattern of interaction between the caretaker-infant, and is reflected in the below average developmental quotients of the institutionalized babies.

Early Childhood Care and Education

1. Observations of interaction between the child, mother and other family members and interviews with mothers reveal the lack of clarity of the relation between home and school work, and the predominantly verbal nature of interactions between the child and family members. Modules for a home based mother education program for mothers of low income groups broadly organized in the areas of environmental studies, mathematical concepts and language have been developed.

2. A home based tutoring program implemented for children of standard I has been found to be effective in promoting language skills, greater awareness of the role of home and school in child's learning, more stimulation of academic bahavior, and modelling and encouragement of social maturity.

3. Implementation of a competency based mathematics program indicates the inefficacy of group-wise treatment of children due to high individual differences, lack of adequate language for mathematics and of conceptual abstraction, and a general lack of orientation to the social environment of the classroom and relation with teacher among students.

4. A screening inventory developed to identify children who manifest areas of learning problems has been found to be an effective diagnostic test. An assessment checklist has been developed on the basis of this inventory. Criterion Referenced Tests have been developed to assess skills in reading and writing. Content validity has been established and the tests have been standardized.

5. A program developed to help children with learning difficulties to overcome their problems reveals the teacher's role in utilizing various teaching techniques and in providing guidance, with sensitivity to individual differences among children.

6. An assessment checklist has been developed to assess the developmental abilities in preschool children. Content and construct validity, reliability and internal consistency have been established.

7. An inservice training program for standard-I teachers of municipal schools has been developed and implemented. The program has been found to be effective in creating awareness regarding new methods of teaching and current trends in child development.

8. A list of competencies has been developed on the basis of review of literature, observation of teachers during teaching situation, and opinions of teachers, principals, and supervisors. A major implication that emerges is the need for strengthening of the training program for teachers.

9. Feedback from alumni regarding the child development curriculum and its relevance to job competencies required in the field indicates that cognitive and social competencies, organizational abilities, efficiency, and management and communications skills are some abilities considered important.

10. A competency evaluation guideline utilised for training child development aides has been developed and has proved effective in discriminating different levels of performance.

11. Compilation of a list of educational play material, toys, and books for young children highlights the predominantly western influence on available toys, wide price and quality range, and availability of books in various regional languages.

Children with Special Needs

1. Children with learning disabilities have average or above average IQs, poor letter formation, and are impulsive, and field dependent in their perceptions. They lack in self confidence, have poor time sense, a short attention span, poor comprehension, inability to coordinate ideas and poor vocabulary. A point worth noting is the lack of awareness among parents and teachers regarding the nature of learning disability.

2. A remedial reading and writing program developed and implemented has been found to be effective in promoting various skills of reading and writing, improving academic performance, and feasible in terms of expenditure, time and content.

3. An assessment tool, the teacher's rating scale, developed to identify children with learning difficulties has been found to be an easy-to-administer and effective screening device. The developed scale has been standardized and norms have been established. The construct and criterion related validity is moderately high and reliability has been found to be very high.

4. A remedial program developed for children with learning difficulties has proved to be effective in improving recognition and meaningful understanding of alphabets and simple words, and reading ability.

5. A high correlation has been found to exist between the home environment and the possibility of a child experiencing learning difficulties in school. Specifically, stimulation through verbal interaction, toys, games and reading materials, and encouragement through expression of pride, affection and warmth on the part of the caretaker at home reduce this possibility.

6. A home inventory developed to identify homes of children with learning difficulties has been found to discriminate between levels of stimulation provided to children. The inventory has been found to be reliable and valid.

7. Problems faced by child patients and their parents in the hospital set-up include lack of familiarity with the environment, lack of guidance, enforced inactivity, and drain on financial resources.

8. An interation program for developmentally handicapped children has proved to be effective in developing independence, improvement in social behavior, vocabulary and speech, and increased self confidence.

Population Education and Family Welfare

1. A population education program has been developed and found to be effective in improving knowledge of population related issues among secondary school students.

2. Knowledge content of out-of-school youth on various population issues ranges from average to low understanding. Utilizing youth in imparting education in this field has proved to be effective.

3. Knowledge content of Thai students has been found to be higher than that of Indian students in the areas of demography, determinants and consequences of population growth, human reproduction, and family planning.

4. Inspite of the shift in the family planning movement to one of family welfare, the services offered by health centres are limited to family planning, immunization and school health services. Lack of follow-up, inadequate training and knowledge of functionaries, overload of work and inefficient functioning of the centre-network are major hurdles in provision of adequate health services.

5. The Family Welfare Centres are perceived by clients not attending the centres as inadequate and ineffective. Reasons for attending these centres are given as proximity of the centre, and free medicines. There exists a low awareness of family welfare services, which is reflected in the low attendance at the centres.

6. Audio-visual aids utilized for training functionaries and field level workers are often inadequate, unsuitable, and culturally irrelevant.

7. The major problems faced by functionaries in the implementation of tribal welfare services include superstitious beliefs among beneficiaries, lack of follow-up on the part of beneficiaries, and lack of facilities at the centre. Increase in basic amenities provided to functionaries, change in the staffing pattern, short-term planning, and home-based programs are some ways of increasing the quality of services provided to the tribals.

8. Based on the needs of the rural community and family as a whole, an integrated educational program has been developed for rural women and children. Guidelines for village level workers have been prepared on the basis of experience of the rural work teams of the Department.

9. A training program for rural volunteers in the area of preschool education has been developed and found to be effective and feasible in the rural setting.

10. Audio-visual aids have been developed for training health functionaries (of the Panchmahals) in family life education.

Status of Women

1. The status of scheduled caste and scheduled tribe women has been found to be generally low in the areas of decision making, household and non-household work, child-rearing, family planning, family relations, and self perception. Women's participation in utilization of services (health and medical care, child care and educational services) is very low.

Nutritional Status and Secular Trend in Physical Development

1. Secular trends have been studied for mean height, weight and ponderal index of infants at birth. A significantly negative direction has been found in secular trend for mean birth weights.

2. Existence of malnourishment among under five years old children of the Panchmahals has been found to be related to the father's education and income. With an increase in age, nutritional status of the children has been found to decrease.

(Please turn page for the list of Monographs and Compendia)

LIST OF MONOGRAPHS AND COMPENDIA

MONOGRAPHS

Sr. No.	Year	Author/s	Title
1.	Nov. 1985	Mallya, I.	'Special play sessions : A play-way method to help children with special needs'.
2.	Nov. 1985	Compiled by Shah, V.	'Research related to home variables & home-based programs of mother education and children's school learning'.
3.	Nov. 1985	Pathak, Y. Pathak, M.	'An experiment in working with rural community : Emerging role of the Child Development Worker.
4.	Nov. 1985	Parekh, K. Mistry, V. Mankodi, H.	'Fostering readiness for primary grades ... An experience with municipal school teachers'.
5.	Nov. 1985	Bakshi, A. Mistry, V. Mukul, N.	'Once upon a time .... And they happily read ever after'.
6.	Nov. 1985	D'Silva, L. Mistry, V.	'Developing competencies for Child Development Workers'.
7.	Nov. 1985	Mukul, N.	'Training child care personnel : Competancy based approach'.

COMPENDIA

Saraswathi, T.S. (1982) Human Development and Family Relations. **Compendium of Researches 1963-1981.** Baroda : M.S. University Press.

Mistry, V.R. (1986) Early Childhood Education and Child Welfare. **Compendium of Researches, 1963-1981.** Baroda : M.S. University Press.

I. CHILD CARE IN VARIED SETTINGS

A. TRIBAL SETTING

B. RURAL AND URBAN POOR SETTING

C. INSTITUTIONAL SETTING

A. TRIBAL SETTING

1. Tavkar, N. (1983). **Child care amongst the tribals of Panchmahals.**

The present study aimed at exploring specific areas of child care and utilization of welfare services by caretakers amongst the tribals of Panchmahals district, Gujarat. The specific objectives involved: (i) exploring the details of the daily routine and the role of the caretakers with special reference to feeding, weaning, toilet training, sleep, and play of children below the age of five years; (ii) finding out about the care of the sick and exceptional children and about the preventive and curative measures taken by the caretakers; (iii) investigating into the extent to which the welfare services are utilized by the caretakers and their awareness regarding the same; and (iv) preparing a pen-picture of a tribal child upto five years with special emphasis on his/her care and daily routine.

Method

Sample

The sample comprised of 20 children under the age of five years from the villages of Moti-Bandibar, Lukhavada, Singwad and Pipalya. The sample represented equally the categories of sex, ordinal position (i.e. first-and later-born) and age (i.e. 0-12, 13-24, 25-36, 37-48, and 49-60 months).

Tools

For the present study, the investigator constructed an **interview schedule** and an **observation schedule** on the basis of review of literature and suggestions from experts in the field. The tool was pilot-tested and inter-observer reliability was established.

Procedure

The data were collected with the help of the multi-purpose health workers of the concerned areas. Around 2 to 3 houses were covered in a day for observations, each child being observed, on an average, for 7-8 hours. Incidental observations which could reveal more about the beliefs and practices of the people from this area of the Panchmahals were also noted.

Analysis

The analysis of the study was primarily descriptive and tables showing the frequencies related to different aspects of child care were presented to enhance the clarity of the data.

Results and Discussion

In view of the specific objectives of the study, the data were analysed in terms of child care practices dealing with sick children and utilization of welfare services; a description (a pen picture) of a typical tribal child; and suggestions for a parent education program in the Panchmahals.

Child Care Practices and Utilization of Welfare Services.

It was observed that for the first three days after birth, the child was fed with diluted goat's milk. **Breast-feeding** was started after these three days. The mother breast-fed the child on demand and suckled it for a duration of 1-8 minutes. It was also observed that while breast-feeding the infant, the mother also utilized the time for soothing and cleaning, whereas for the older child, feeding became mechanical.

As far as **weaning** was concerned, the investigation revealed that the child was usually weaned by the age of two and a half years. Weaning may be gradual or abrupt depending upon several reasons like next pregnancy, insufficient milk, or mother leaving for jobs outside the village. At this stage no special food was prepared for the child, feeding meant handing over food to the child.

Toilet training was observed to be very lenient, and was given only when the child started walking and talking. The child was found to be dependent on the mother for cleaning-up till the age of four years. Bathing involved mere pouring of water over the body. Uptil the age of four years, the children were clad in shirt/vest or often roamed about naked. With regard to **sleep**, the study revealed that the child slept in a cradle upto the age of three years (i.e. if a younger sibling had not been born) and no special effort was made to clean the surroundings in which the child slept.

Independent **play**, for the child, started at the age of one and a half years, in the company of neighbor's children, cousins or siblings. After the age of three years, work went along with play. The children used natural material (sticks, stones, etc.) from the environment for playing.

Observations/interviews revealed that **sickness** in children was a source of worry to the parents but no special care in terms of feeding, clothing and sleeping was taken, and treatment was offered only when it was too late. **Welfare services** were not utilized well, i.e. preventive aspects of health were neglected and immunization was not a general practice. Children generally suffered from fever, diarrhoea, cold and measles. Bhagat, a local medicine man, was sought for treatment of ailments.

Description of a Typical Tribal Child.

The general picture of the tribal child emerges as that of an independent individual capable of making demands on his parents and other caretakers for food and protection. He/she is a secure, relaxed member of the family. The tribal parents have an approach of acceptance and protectiveness towards their child. A tribal child in Panchmahals grows up in a relaxed atmosphere with the mother as the chief caretaker and older siblings or grandmother as other caretakers, at least till five years of age.

Suggestions for Parent Education Programs.

Formulated on the basis of the findings of the present investigation, suggestions for parent education programs include tackling the following misconceptions during the program: (i) medicines or injections taken during sickness will incur the wrath of their goddess; (ii) patient's clothes should not be washed; and (iii) husband and wife should avoid coitus during illness in the family.

B. URBAN AND RURAL POOR SETTING

2. Saraswathi, T.S., & Dutta, R. (1985). **Socialization of children and adolescent girls among the urban and rural poor**, Mimeographed Report, M.S. University of Baroda, Baroda.

The broad objective of this project was to understand socialization of children and adolescent girls in their cultural context, with focus on the poorer sections which form a large majority of Indian population. The major components of the study included: (i) understanding children and adolescent girls in impoverished community settings; (ii) understanding the family set-up in which the children and adolescent girls are brought up; and (iii) understanding the macro-level community context which influences behavior directly and indirectly through its constraints and environmental potentials.

Method

Sample

The following criteria guided the selection of the urban slum and rural poor communities as settings for the present study: (i) low socio-economic level; (ii) established liaison between the concerned community and the Department of Human Development and Family Studies; and (iii) availability of secondary data on the demographic and quality-of-life indicators of the community.

While an effort was made to select a 'typical' community, a compromise had to be made keeping in mind factors such as accessibility, lodging facilities, assured safety and co-operation from community leaders and functionaries. The communities thus selected were Rustampura (the rural setting) and Kamatipura (an urban slum of Vadodara).

With the help of house-to-house survey of the communities, a representative sample was chosen by stratified random sampling: (i) **Sample A** comprised of 12 children and 10 adolescent girls from Kamatipura and 10 children and 10 adolescent girls from Rustampura. Prior to the selection of the sample, however, the families' willingness to co-operate was ensured; (ii) **Sample B** consisted of the mothers of children and adolescent girls of Sample A. These included 22 mothers from the urban and 20 mothers from the village setting; (iii) **Sample C** included a sample of convenience chosen from among the community leaders, functionaries, youth and elderly members of the community.

Procedure For Data Collection.

To minimize the observer influence, the researchers' entry into the community was very subtle. They were introduced as students genuinely interested in the development of children from poor communities. It was explained that their work (observations and interviews) was required by their college.

Despite being familiar to the people in the two (rural and urban) community settings (through the pilot study and community level meetings), the research workers stationed themselves at prominent places for the first few days, noting down general observations and letting people get habituated to their presence.

1. **Observation of children and adolescent girls :**

The families of the subjects were contacted one or two days prior to commencement of observation of their child to: (i) rebuild rapport; (ii) recheck on earlier survey information and note if any changes had taken place in the intervening period; and (iii) confirm their presence in the community for the next few days.

Each child/adolescent girl was observed from dawn to dusk in blocks of four to five hours (with a 15 minute overlap between two observations) and narrative records were maintained with a time reference for **what** the subject does and **how** (activity), **where** (locale) and **with whom** (person). Subject to availability, the selection of a day for observation was random. Conversations, interactions, emotional expressions and contextual data were recorded in detail. The actual data were collected only after the subject showed no self-conciousness in the presence of the observer.

2. **Interviews of mothers and adolescent girls :**

Semi-structured, informal, directive interviews were conducted in 2-3 sessions, adjusting to the subject's convenience and mood. The interviews were carried out in as much privacy as possible. The recording of the responses to questions was done on the spot or immediately after the interview. The recorder placed herself as unobtrusively as possible. Whenever necessary, shy and inhibited girls were paired with their more vocal peers to enable them to respond more freely.

At the end of each day, interview responses were translated and items checked against the name of the interviewee on the master chart.

3. **Secondary data sources :**

These sources included Government of Gujarat statistical reports, masters and doctoral dissertations from the fields of Social and Preventive Medicine, Social Work, and Child Development.

4. **Field Notes :**

These included notes on informal talks with people, community events like movies, games etc., gossip of the day, impressions regarding subtle meanings attributed to events etc. This information was utilized to provide and enrich the qualitative description of the community.

Analysis.

The technique of time budgeting was utilized for analysis of observation data wherein daily time allocation by individual subjects to different activities, locales, and persons was calculated. Qualitative descriptions of the community and family climate, interactions between the subjects and the family/community members were obtained.

Interview data from adolescent girls, mothers, and community leaders were also analysed qualitatively and quantitatively. Quantitative analysis involved preparation of frequency tables for coded interview responses.

Results

The results of the study have been presented in consonance with the objectives of the study, namely:

1. Community contexture,
2. Socio-cultural set-up,
3. Family set-up, and
4. The daily life schedule of children and adolescent girls.

1. Community Contexture.

Rustampura, a medium sized village in Vaghodia taluka, consists of 140 households, of which 36 households belong to Scheduled caste/Scheduled tribes living in a hamlet called Govindpura. The major occupation of the residents of this village is agriculture. Irrigation facilities, however, are poor and the village has inadequate and brackish subsoil water.

Kamatipura, the urban slum, comprises of 250 families. The occupation of the residents is very diverse. Kamatipura suffers from over-crowdedness and poor ventilation, absence of : 'pacca' houses and wells, steady supply of fruits and vegetables, and police protection.

Poor sanitation and absence of domestic water supply was observed in both the communities. Literacy level in both the communities was low, with female employment being higher in the urban slum. The work load of the rural women, however, is high during the months favorable to agriculture. Though health and nutrition services and educational facilities are available in both the communities, Kamtipura stands to advantage in terms of the number and nature of basic services available and utilized.

2. Socio-cultural Set-up.

In both the settings, power hierarchy among the different social classes is evident. Inspite of harmonious relations between the different religions, there are well internalized restrictions on matrimonial alliance between different religions and castes. Male dominance and superiority typify the rural and urban settings. The urban women believe less in the dependence of women on man than do rural women, probably because of exposure to the urban environment. Marriage and birth of a first child, especially a son, bestows status on women.

Marriage closely follows the onset of puberty. However, no conscious effort is made to prepare girls for puberty. No special care is associated with pregnancy among the poorer sections of the society. Birth of a first child, especially a boy, is accompanied by great rejoicing. The life of the people from Kamatipura and Rustampura is highly influenced by faith in supernatural powers, both good and evil.

3. Family Setting.

The roles and responsibility of rural and urban women varies. While the rural woman's day comprises of house work (like collecting wood, cleaning vessels, fetching water), and agricultural labour, the urban woman's daily schedule has more scope for variation with tasks like standing in ration queues, visit to city market, sewing, added to the household chores.

Child Socialization in the poverty context is very similar in both the urban and rural settings. When the child is nine or ten years of age, the parents start pressurizing for social conformity and clear sex differences begin to emerge in socialization practices. Among agricultural laborers, boys are expected to do farm work or graze cattle. Expectations from boys in terms of contributions to household chores and family purse is more blurred in the urban slum setting. Girls are expected to assist in the household when young, and assume responsibility for housework and care of siblings as they grow older. In general, a less strict code of conduct is imposed on boys. Scolding and threats were observed to be predominant modes of discipline with infrequent use of explaining to the child or of love withdrawal.

In the rural setting, importance of education is recognized but is not always reflected in practice. The meaning attributed to education and the purpose it serves in the urban slum setting is very different from the rural set-up. Formal schooling gains importance because of the need for occupational support.

4. Daily Life Schedule of Children and Adolescent Girls.

The activities observed among the rural and urban children and adolescent girls comprised of play; resting/idling/loitering; observing and conversing; personal care; housework; and income generation and employment.

Play features as the most important activity for rural and urban children and takes up a significant chunk of the time of urban adolescent girls. **Resting and idling** for short periods is quite common, though boys are more energetic than girls in these 'aimless' activities. Girls were seldom seen to rest in public places. **Observing and conversing** formed an integral part of every day life. Maximum time was spent in observing unusual activities. The conversation of the adolescent girls was more adult like. In terms of **personal care,** by 6 years most children are expected to take care of their needs with the help of their mothers/family members.

Household work was observed to be the domain of females. However, community errands in the rural setting are the responsibility of males. In terms of **income generation and employment,** the children were often found to assist in agriculture or other income generating work done at home (in the rural setting) or earn money by selling water (in the urban setting).

While observing the daily life schedule of the children and adolescent girls, it was found that boys spend less time with mothers than do girls, but that both spend a negligible amount of time with their fathers.

Discussion

Data on child socialization obtained in the present study have been interpreted from the ecological perspective of the macro and micro environmental contexts as they impinge on the child's daily life. The observations that are made, however, pertain to the lives of the families and children who form the **upper strata** of the poor in rural and urban slum settings.

Goals of Socialization

In both the settings, child birth is a welcome event. Feeding, weaning, and toilet training are relaxed and gradual, and by the age of 5-6 years the children are self-reliant.

Children are usually within calling distance and are often found assisting in household chores. By six to seven years children begin to understand the codes of conduct, being verbally tutored or even physically punished to fall in line with the expected mode of behavior. Caste distinctions and caste related etiquette are clearly spelt out in the rural setting, and fuzzy though not absent, in the urban slum setting.

By seven to eight years, clear sex differences begin to appear in children's time allocation to different activities, loci and persons, indicating the beginning of their preparation for adult roles. Around eight to nine years, the time spent by boys in outdoor chores increases, while girls spend more time in housework. With the onset of adolescence, boys are increasingly drawn to male company providing more scope for deviation from norms if such peer models are available. For the adolescent girls, however, the reins of control are very tightly drawn and they are 'prepared' to assume the role of home-maker and a good daughter-in-law.

The strong kinship network in the rural setting makes socialization much smoother for the children than in the urban setting, where a certain degree of reservation or even suspicion prevails regarding the others' potential influence, especially if their way of life differs from that of the child's home.

Gender Differences in Socialization

On being a woman in a man's world.

In terms of gender roles, there is an unquestioning acceptance of the dependence and inferiority of women.

The role relationships of parents as man and woman affect child socialization in determining the role of parents in socialization, and in governing the content of socialization. The mother, in most cases, figures as the main disciplinarian as child care is her major responsibility. However, by virtue of his superior position as the decision maker in the family, the father becomes the gate-keeper of family resources and hence of the opportunities available to children.

Education and occupational socialization of boys.

Unlike their urban counterparts, rural children have easy access to their parents' work site and work situations, especially when they are from the agricultural or shop-keeper (baniya) community. For the urban slum children, especially those of factory staff, the workplace, especially of the father is, in a context distant from the world the child is familiar with. Thus, socialization for occupational roles takes place later for the urban slum child than for the rural child.

Even with the stated awareness of the importance of education for "improving one's lot" through better job opportunities, school features very low and often remains at the fringe as an agent of socialization. Children go to school when they are young and cannot be "usefully occupied" otherwise. Continuation of studies beyond primary grades for the boys depends upon the economic condition at home and the boy's interest in further studies.

In the urban slum, the school assumes more relevance in the hope that education would brighten chances for a better job, but the link remains at best, very nebulous.

The Poverty Context and Resistance to Change.

In the present study, adult women were found to be resigned to their lot of poverty and were guarded in their predictions regarding the possibility of improving the life of their children. However, there was no indication of a negativistic attitude toward life. What came through was an adaptation to the constraints of the setting and the resilience to cope and manage rather than hostility or despondency, thus raising questions regarding the existence of a pervasive 'culture of poverty'.

The emphasis is on conservation rather than change, the latter tolerable only in subtle ways and if it can be woven into the existing fabric of life without disturbing the equilibrium. In the lives of the poor, the most acceptable point for change is the possibility of earning a regular income.

References

Kapadia, S. (1980). **Towards an ecological understanding of the child in his community.**

Misra, R. (1981). **Understanding the adolescent girl in the slum community : An ecological perspective.**

Dutta, R. (1983). **Socialization in an impoverished agricultural community: An ecological perspective.**

Gore, M. (1983). **Socialization of rural adolescent girls from an ecological perspective.**

C. INSTITUTIONAL SETTING

3. Khurana, B. (1985). **A case study of a residential institution for infant care.**

Assuming the influence of a multitude of factors within the care giving environment on developmental outcome, the present study was undertaken with the major objective of developing a case study of a residential institution for infant care and suggesting strategies of infant stimulation.

Method

A systems approach to child study was utilized as a strategy for the research design of the present study.

Sample

Seven infants (below 36 months of age), five caretakers, and the head of the institution were selected from the State Home for Women, Baroda. A sub-sample of three infants was further identified from the total sample, on the basis of their developmental quotients (highest, average and lowest) obtained on the Bayley's Scales of Infant Development (BSID) for detailed profiles.

Tools

With the aim of building a case study of the institution, the various tools utilized were: Schedules for (i) observation of caretaker-infant interaction, (ii) observation of physical layout of the institution, (iii) records of incidental observations; Interview schedules for (iv) caretakers, and (v) the head of the institution; (vi) Bayley's Scales of Infant Development; (vii) Bayley's Infant Behavior Record; (viii) background record form (Infants); and Schedules on (ix) provision of basic amenities in the institution, and (x) background information and staff pattern of the institution.

All the above mentioned tools (except vi and vii) were modified on the basis of suggestions by experts in the field of Infancy and Child Welfare and through pilot-testing on a sample in a residential institution for infant care that was not included in the sample.

Procedure

Data were collected in the instituion within a period of 45 days. The infants were tested on BSID, immediately after which anthropometric measurements (viz. standing height, weight, head, chest and mid-arm circumference) were taken.

Observations of interactions between caretakers and infants were undertaken in two phases :

1. All interactions between caretakers and infants were recorded to understand the general pattern of interactions in the institution;

2. Interactions between caretakers and the sub-sample of three infants were recorded for each infant to check on the reliability of the general pattern of observations and to examine the effects of infant characteristics on caretaker behavior toward infants.

The interactions were recorded by making running observations with the help of pre-coded sheets. The initiator, mode of initiation and response, and the duration of interaction were recorded in 30 minute observational blocks followed by 10 minutes rest in sessions lasting for about two and a half hours each. Each block of observations was conducted thrice for maximizing reliability of observations.

Later, interviews of the caretakers and the head of the institution were undertaken, followed by documentary analysis of the institutional records.

Analysis

To develop a case study of the institution, data obtained from the various tools employed in the study were categorized into the following major areas: (i) the institutional setting which included aspects of physical layout, provision of facilities and staff-pattern; (ii) caretaker-infant interaction which included aspects on timings, mode and quality of interaction, individual-group and reciprocal interactions; and (iii) profiles of a selected sub-sample of infants.

Results and Discussion

The physical facilities provided in the institution were observed to be below par (eg., scarcity of water, open gutter system, inadequate lighting, etc.) Hence, there is a need to make the infant's environment more hygienic and stimulating.

Observations of caretaker-infant interactions showed that the frequency of neutral caretaker behaviors was the highest followed by restrictive behaviors. Moreover, the verbal mode of interaction was employed the maximum by both caretakers and infants. Supportive behaviors were expressed maximally through non-verbal modes, and verbal modes were employed maximally to express restrictive behaviors. The frequency of caretaker-initiated interactions was greater than infant-initiated interactions.

The developmental quotients of all the infants were below normal. A majority of the infants suffered from skin diseases and none of the infants showed age-appropriate social behaviors. Detailed profiles of the infants in the sub-sample revealed majority of age-appropriate motor abilities to be walking, throwing and fine prehension skills. Lags observed in motor and mental abilities were in the areas of climbing and getting down the stairs, jumping and balancing skills; and in vocabulary, locative orientation skills, manipulative skills, goal orientation behavior, memory and relational skills, and problem-solving ability.

Certain strategies for infant stimulation have been suggested to improve caretakers' interactional skills, to enable them to utilize play as a strategy and mobilize resources to promote infants' development.

References

Dave, P., Hakim, M., & Tavkar, N. (1985). Child care among the tribals of Gujarat. **ICCW News Bulletin, 32(7).**

Dave, P., & Tavkar, N. (1985). Profile of a tribal child in Panchmahals. **Journal of Social Welfare, 32 (3)**, 28-29.

Dutta, R., & Saraswathi, T.S. (1986). Socialization of the Indian child in a rural poverty setting. In McGrabie, & A. Verma (Eds.), **Household resources in rural India.** Champaign: Illinois, University of Illinois Press.

II. EARLY CHILDHOOD CARE AND EDUCATION

A. HOME BASED PROGRAMS

B. SCHOOL BASED PROGRAMS

C. ASSESSMENT

D. TRAINING OF EARLY CHILDHOOD CARE & EDUCATION WORKERS

E. EDUCATIONAL PLAY MATERIALS

F. SPECIAL ICDS PROGRAM

A. HOME BASED PROGRAMS

4. Iyer, U. (1981). **On the threshold of learning : The mother and child at home.**

The present study was conducted with the objective of (i) understanding the community and home environment of the children attending municipal schools; and (ii) building a home-based program by including real life situations and mother-child interactions pertaining to the concepts of learning as found in the school curriculum.

Method

Sample

The sample consisted of 12 children of kindergarten and standard I of a municipal school of Baroda and their families. The sample was selected according to the following criteria : (i) below average performance in class; (ii) low income of families; and (iii) minimum education of mother till standard III.

Tools

The following tools were prepared by the investigator :

1. **The Observation Schedule** (based on Caldwell's Home Inventory, 1979) covered aspects related to home and the community set-up, events and interactions in the family during a typical day.

2. **The Interview Schedule** consisted of questions related to the mother's orientation to the child's learning at home and school. Specifically, questions pertained to the mother's awareness of school and school activities, opinion regarding schooling and influence of home on the child, and her willingness to co-operate for a program of mother education.

Procedure and Analysis

The first step was to select families as per the criteria and observe them for a day. The twelve families selected were observed on typical days from dawn to dusk.

After completion of the observations, the mothers were informally interviewed. At the third stage, the syllabi of kindergarten and standard I were obtained from the school through the school authorities and teachers concerned, and scanned for identifying the concepts that could be introduced in the home-based program of education.

The data obtained from observations and interviews were analysed in relation to the units and concepts of learning involved in the school curriculum, and a set of learning activities focussing on the mother-child interaction were formulated.

Results & Discussion

Family Background

The families observed were nuclear and had an average monthly income of Rs.350/-. These families resided in an urban set-up, surrounded by middle-class dwellings. Except for one of the fathers, all were literate and were employed or self-employed. A few mothers earned by working as maids or by engaging in home-based income generating activities such as, running a shop or stitching clothes for sale.

Mother's Views Regarding the Child's Learning

The interviews revealed a difference in the opinion of mothers of the two groups. The mothers of kindergarten children favored school experiences and appreciated the school's functioning, whereas the mothers of the standard I children were critical. Both the groups of mothers valued schooling for fostering learning. However, they were very unclear regarding the relation of home with school work.

Activities and Interaction of the Family Members During the Day

During the day, the families, specifically the mothers, were involved in daily household chores from dawn to dusk. Within the time spent at home and with the child, the interactions between the parents and the child occurred as and when the child sought attention for his/her immediate needs or when the mother or father instructed or demanded the child's help on tasks at hand. The interactions with siblings centered on things to be mutually shared and talked of. With peers, the child spent most of the day actively participating in structured and unstructured play.

Most of the mothers engaged in verbal interactions with the child. The statements were of a simple or complex level, at the child's level of comprehension. Most of the mothers insisted on habits of cleanliness. Only few of the mother's interactions focussed on promoting learning of concepts and facilitating the child's understanding of cause-effect relationship. A few of the mothers offered academic guidance to the child.

Observations of the family's interactions gave encouraging insights into the opportunities utilized by mothers for building the home-based mother education program. The potential learning experiences such as daily activities of the family in which all the members participated and the events common to all the 12 families were the bases for building the home-based program for mothers.

Modules for a Home Based Mother Education Program

The final outcome of the study were the modules for a home-based mother education program for mothers of low income groups. The modules have been broadly organized in three areas : Environmental studies; Mathematical concepts; and Language. Each area gives strategies for promoting various concepts (e.g., mathematical concepts like big and small, light and heavy, etc.). The modules lean heavily on the school curriculum.

5. Boman Patell, J. (1983). **Implementation of home-based program in an urban slum setting : An experience.**

The present study aimed : (i) to guage the effectiveness of the planned home-based program in terms of children's learning in the areas of mathematical concepts, language, and environmental study; (ii) to gain information from the mothers regarding their needs in aiding their children's learning processes; and (iii) to see the modifications made, if any, in the home environment and daily routine and interactions to facilitate the child's learning, in terms of stimulating materials and interacting patterns.

Method

Sample

The sample for the present study consisted of 38 mother-child dyads residing in Navapura or Police lines at Akota (Baroda). The children were boys and girls studying in standard I of the Nagar Prathmik Shikshan Samiti (NPSS) school at Police lines Akota.

The selection of the sample was based on school related and home related criteria. The sample formed two clusters in accordance with their residential areas. Each cluster was divided into control and experimental groups based on the proximity of the home, keeping the number of mothers in each cluster equal. Of the total list of mothers, 10 were potential childbearers, 24 had toddlers while the rest (n=4) had older children in the family. The income of the families ranged from Rs.450/- to Rs.800/- per month. The educational qualifications of the mothers ranged from no education to standard XI. In the experimental group, 10 of the mothers were educated, while 8 were uneducated. In the control group, an equal number of mothers were educated and uneducated. The age range of mothers was from 25 to 40 years.

Tools

In order to guage the effectiveness of the home-based tutoring program for mothers through gains made in children's learning, the Reading Readiness Test and the Assessment Guide were administered prior to and after the program.

1. **The Reading Readiness Test** is a standardized test developed by Umrajwala (1977), aimed at measuring the reading readiness of children. The areas covered are : (i) word meaning; (ii) sentence meaning, (iii) visual discrimination; (iv) auditory discrimination; and (v) copying.

2. **The Assessment Guide** is composed of 20 worksheets based on kindergarten curriculum of NPSS schools. The worksheets measure: (i) knowledge about the human body; (ii) sound and letter discrimination; (iii) visual discrimination; (iv) perceptual motor skills; (v) discrimination of more/less & large/small; (vi) matching; (vii) identifying, counting and relating; and (viii) discriminating shapes. These assessment work-

sheets are a part of a compilation prepared by Gupta, Guha and Shah (1980).

3. **The Interview Schedule for Mothers** was used to gain information from the mothers regarding their needs in aiding their children's learning processes. The interview schedule was used prior to program implementation and for post program evaluations of their gains. The questions in the schedule pertained to : (i) the attitudes of mothers regarding values of schooling; (ii) the mothers' extent of knowledge of school and school related activities; and (iii) the need for help and guidance as perceived by mothers.

4. **The Home Inventory Scale** (Adaptation of Caldwell Home Scale, 1979). In order to see the modifications, if any, in the home that facilitate the child's learning, the Home Inventory Scale was used after modifying it for use in the Indian slum setting. It was designed to sample certain aspects of the amount and type of social, emotional and cognitive support available to the 3-6 years old children in their homes. Its eight subscales measure: (i) stimulation through toys, games and reading materials; (ii) language stimulation; (iii) physical environment, safe, clean and conducive to development; (iv) pride, affection and warmth; (v) stimulation of academic behavior; (vi) modelling and encouragement of social maturity; (vii) variety of stimulation, and (viii) physical punishment.

Procedure

The study was carried out in four stages :

Stage I : The pretesting. The pretests included the testing of children (in the school) on the Reading Readiness Test and the Assessment Guide. The testing was conducted over two-three sessions, each session being of about an hour's duration.

Stage II : Informal Interview and Home Inventory Scale. The mothers were interviewed on the second or third home visit, the first visit being used for rapport building. During the interview session, the first 10-15 minutes of the visit were used for observations on the Home Inventory.

Stage III : Program Implementation. The 'Home-Based Tutoring Program' consisted of twenty topics which were formulated into lesson plans. The topics were presented through discussions and not lectures. Each topic was planned in terms of : (i) Objective; (ii) Strategies suggested to the mother; (iii) Content of discussion; (vi) Activity recommended for the day; and (v) Audio-visual aids that would be used to emphasize the content. Indigenous materials were selected from the environment itself for use as aids, besides the few charts and pictures that were used as illustrations. An introduction and orientation session was conducted prior to the implementation of the twenty topics, in order to make the mothers aware of the objectives of the program and its relevance to their children's learning besides being a support building session for the participants.

During the implementation phase, the sessions with the mothers were held in groups of nine mother-child dyads in each community. Observations of the interactions between the mother and the child during the sessions were conducted whenever feasible, and the mothers were requested to give feedback after the culmination of each session. These discussions were mainly informal. The mothers were encouraged to relate their experiences with their children and discuss their problems with the group.

Stage IV : Evaluation. This was done with the help of responses obtained from pre- and post-testing of the children's responses obtained through interviews of the mothers, and evaluations and suggestions (pertaining to the program) given by the mothers.

Analysis

Pre- and post-test scores on the Reading Readiness Test were analysed with the help of t-test for the experimental and control groups of mother-child dyads. Data obtained from the Assessment Guide were analysed graphically. Frequencies of responses of the Interview Schedule and the Home Inventory were analysed in terms of the gains found/observed as a result of exposure to the program.

Results & Discussion

Program Effectiveness : Reading Readiness Test and Assessment Guide.

Results obtained on analysing pre- and post-test scores on the Reading Readiness Test were significant at 0.01 in favor of the experimental group. The results in terms of percentiles indicated that while both the groups showed gains, the gains of the experimental group were higher.

The scores on the Assessment Guide indicated gains for both the groups. The category-wise analysis indicated that the maximum gains for the experimental group were in the areas of language skills and identifying, counting and relating, which could be directly linked to the effects of the home-based program wherein these skills were emphasized. Although the language component was not a basic part of the home-based program, each of the twenty topics discussed with mothers encouraged verbal interaction with the child. Both tests revealed problems in writing, writing of numbers, identification of sound and letter, and reversals.

Interviews with Mothers

Analysis of responses from the interviews with mothers indicated emergence of certain salient features: (i) The amount of verbal interaction between mother and child increased and had a direct influence on the child's performance; (ii) an increasing number of mothers realized the value of schooling and exhibited awareness about the school; (iii) mothers became increasingly aware of the possibility of utilizing everyday experiences in the home to promote the child's learning; (iv) realization of the role the school and its teachers play came to the fore and mothers were willing to take action against indifferent teaching; and (v) mothers expressed a need and eagerness for an educational program with additional components of non-formal education, health and sanitation, and child rearing practices.

The Home Environment

The scores in percentages obtained by the experimental and control groups in the pre- and post-evaluations per category of the Home Inventory indicated that the experimental group had increased percentage scores in all areas, but more specifically in the areas of Language stimulation (81.0%); Pride, affection and warmth (86.56%); Modelling and encouragement of social maturity (87.04%); and Stimulation of academic behavior (47.36%). There was a slight decrease in the percentages in the area of physical punishment for the experimental group, while there was an increase for the control group.

The Child in School

While the school and the teacher were not a focus of the present study, they became essential components considering the fact that children did not seem to be benefitting from school teaching and incessant complaints and queries of the children regarding school. Informal conversations with teachers led to identification of following problems: chronic irregularity of children, lack of preschool experience, overcrowding in classrooms, lack of aids, and ambivalence of attitude among teachers and parents.

A plan for implementation of such a home-based program at the city level has been formulated in terms of investment of time, planning, number of personnel, qualifications required, cost per year, etc.

6. Pandit, B. (1985). **Towards a comprehensive home-based mother education program : physical and language development.**

The present study attemped to develop a comprehensive home-based program for mothers of preschool children with emphasis on physical and language development. The major components of the study involved: (i) compilation of information, for a model home-based mother education program, from available departmental literature on : broad areas and specific units covering overall child development, daily household activities, and some guidelines for the mother educator; (ii) identification and filling of gaps wherever necessary for the program, in order to make the program comprehensive, and (iii) development of a comprehensive program in two areas of child development (i.e., physical and language development) on the basis of the above information.

Procedure

Step I : Compiling Information on Knowledge Content Essential for Mothers, on Different Aspects of Child Development.

Available information related to the growth and development of children (in all cases from low income/slum settings) was classified under three categories: (i) Child rearing practices; (ii) Early education; and (iii) Developmental assessment. The information/content was then classified under five areas of child development: physical; language; social; emotional; and mental development. The content was then divided into two parts for convenience in developing the final program. The first part had general information which included all the "essential" information relating to care and protection of the child, while the second part listed the age-wise abilities or skills of preschool children. The information was arranged in a systematic and logical order to reflect broad areas with their specific units.

The above content was then strengthened, where necessary, in order to reflect the needs of the present times. For this purpose, literature on status of the Indian child was reviewed and some informal interviews were conducted with experts who directly or indirectly influence child care and development, especially in low income settings.

Step II : Compiling a List of Daily Routine Activities.

A list of the typical daily routine household activities in slum families was compiled based on available studies on families in the slum setting. Included in the list were events, general and regular happenings, for example, visit to the park, celebration of festivals and so on.

Step III : Compiling a Guideline for the Mother Educators.

A guideline emerging from the different projects was compiled for the mother educator. This reflected valuable information and lessons learnt by various programmes, the awareness of which could facilitate better communication between the worker and the target group. The list was then arranged in a way so as to reflect the program implementation from rapport building to evaluation stage and was included as a facesheet to the home-based program.

Step IV : Developing Strategies of Mother Involvement in Promoting Children's Age-wise Abilities Through Household Activities.

The following strategies were developed for promoting children's age-wise abilities in the selected areas of physical and language development, by making use of household activities: (i) enhancing child's participation in daily routine activities at home; (ii) using fruitfully the general and regular events and outings; (iii) involving the child in simple games; (iv) making simple home-made play-cum-educational materials for the child.

For the strategy of using daily routine activities, all components of each activity were utilised for promoting a skill or ability of the child. Increasing levels of difficulty were spelt out if found to be progressive in nature; for example, in the task of fetching and carrying, at first the child may be asked to carry empty bags for shopping, he/she would also carry big and small materials such as empty vessels, washed utensils and containers to their proper places. Later when able to do it, the child could carry small utensils filled with food or could fetch drinking water for the family meals without spilling. This could be used for promoting motor skills of eye-hand or fine-muscle co-ordination or it could be used to promote general balance or body co-ordination.

In the same way, the skills that the general events and outings promote, were also spelt out. In the daily routine activities, for example, while celebrating events like a festival, a child would be given little tasks such as making a garland of leaves or the child would help fetch things. During the progress of the event, he might be encouraged to observe and ask about what he sees or wants to know. Thus the event could be used for promoting observation skills and language development.

Simple games and low-cost materials were outlined for the same purpose. These were easy to give by the mother, for example, staging a puppet play with a "do it yourself" puppet, when she rested from her duties. Such material was used to promote listening skills.

The local games of langdi, catching, hide and seek were also suggested. Suggestions for providing variations to children's games as well as for constructive use of certain household materials were given, for example, making stuffed toys/ball out of rags.

B. SCHOOL BASED PROGRAMS

Joshi, S. (1983). A competency-based mathematics program.

The present study aimed to develop a competency-based instructional program in mathematics for the first and second standard children of corporation schools of Baroda. The program had the following features: (i) division of the curriculum into a number of specific concepts and their arrangements in a hierarchy such that the attainment of any concept would lead to the attainment of the very next one; (ii) break-up of the entire hierarchy into three units with specific goals and terminal behavioral objectives, namely (a) concept of numbers upto 1000, (b) operations of addition and subtraction, and (c) operations of multiplication and division; (iii) specification of activities, materials and teacher student behaviors for teaching/learning of each concept, and construction of criterion reference tests (CRTs) based on each behavioral objective of each concept.

The study also aimed to develop a pre-post test based on items of individual CRTs in the program and to administer the program for a period of three months.

Method

The design chosen for the present study was a single pre-test-post-test design.

Sample

The sample consisted of 30 boys from the second standard of Corporation Boys School No.2 (Sayajigunj, Baroda) within the age range of 7-11 years. All the boys were from the slum areas of Bhimnath Mahadeo or Jetalpur. A majority of their fathers were mill workers with monthly salaries ranging from Rs.100/- to Rs.200/- and the mothers were either vegetable vendors or housemaids. Ninety percent of the boys were first generation learners.

Tools

(i) **The Individual Criterion Referenced Tests** were used to give a continuous evaluation of student performance. There were, in all, 35 CRTs developed to tap 35 concepts. In each test, there were sub-tests for each behavioral objective of a concept, each sub-test including 5-8 items, all of the same difficulty, (ii) **The pre-post Test** was developed to measure the overall effectiveness of the program.

Procedure

The pretesting was carried out in five sessions. The subject content of the program to be implemented included the first and the second standard math syllabi. Four pre-mathematical concepts were also included to assess the concept of number. All the concepts were divided into three units with goals mentioned for each unit. Each unit had hierarchy of concepts related teaching activities and criterion reference tests. The approach of the program was classroom oriented.

During the process of program implementation, a number of changes had to be made in the procedure. Firstly, because of the vast individual differences, the class had to be divided into three groups. Secondly, according to the investigator, the criterion reference tests were rendered useless as the children did not answer them inspite of knowing the answers. Thirdly, on finding severe deficiencies in the areas of language ability and conceptualization of some children, the entire focus of the program had to be shifted to finding out the exact needs of the children, which were felt to be characteristic of the general population of disadvantaged children.

The post-testing was done ten days after the completion of the program.

Results and Discussion

It was found that wide individual differences existed in the abilities of the children and thus all disadvantaged children could not be put in the category of low achievers. In general, children found to be unable to cope with the scholastic work in the classroom exhibited a number of difficulties such as: (i) lack of adequate language for mathematics; (ii) lack of conceptual abstraction; and (iii) a general disorientation to the social environment of the classroom and the teacher-student relationship.

The pre-test-post-test shift was negligible and, when present, it was difficult to attribute the same to the program per se.

C. ASSESSMENT

8. Alamshah, P. (1982). **Preparation of a screening inventory for the early years.**

The present study aimed: (i) to develop a screening inventory that could be used by classroom teachers and professionals for identifying children who manifest areas of learning problems or are an "at risk" population: and (ii) to screen kindergarten children for assessing their abilities in the areas of Gross-motor, Finer-motor, Communication, Conceptual, Sensory and Affective skills.

An "at risk" child was defined as a child who is unable to perform according to his/her developmental age in conceptual, communication and psychomotor domains. Besides, an "at risk" child may also tend to exhibit such behavior as laterality confusion and hyperactiveness, restlessness, etc.

Method

The project involved the preparation of a screening inventory and administration of the inventory to kindergarten children so as to collect data which would help to modify, increase or decrease the difficulty level of the items, as well as to judge the feasibility of administration of the inventory in a pre-school/kindergarten class-room.

Development of the Screening Inventory

The criteria followed while developing the inventory were: (i) age range of children (2 1/2-5 years); (ii) individual and group administration; (iii) applicability to most balwadi and kindergarten classrooms; (iv) process orientation, i.e. the inventory should state the sensory modalities essential as inputs and outputs for a specific task.

The inventory was thus prepared after reviewing the following literature: (i) Keele Pre-school Assessment Guide - Tyler and Foy (1978); (ii) Developmental Indicators for the Assessment of Learning - Mardell and Goldenburg (1975); (iii) Teacher's Rating Scale - Mistry, Mohite, and Kapoor (1980); (iv) Manual of Diagnostic and Prescriptive Activites for children with Specific Learning Disabilities - Mistry and Mohite (1980); (v) Parental Involvement Project (P.I.P) Development Charts-Jeffrie and McConkey (1978); (vi) Bury Early Infant Learning Checklist - Pearson and Quinn (1978), and (vii) Measurements of Maturation, Vol.II - Boyer, Simon, and Karafin (1973).

The prepared inventory had the following sections: Grossmotor, Finermotor, Communication, Conceptual, Sensory and Affective skills. The first four sections have five items each and the last two have four items each. Each item was broken up into six levels according to the developmental norms obtained from the review of literature.

Each item was analysed to assess the sensory modalities tapped during the input (visual, auditory, haptic) and output (verbal, motor) and the skills required i.e. perceptual, memory, previous learning association, kinesthetic awareness, coordination, and language.

Prior to finalising the inventory, it was subjected to a careful scrutiny by a group of 12 experts from the fields of Education and Child Development to check the following: (i) categorization of items; (ii) clarity and interpretation of items; (iii) feasibility for a teacher's use; and (iv) scoring procedure.

Administration of The Screening Inventory

A sample of 58 children was chosen from two local nursery schools, viz. Alembic Vidyalaya (A) and Municipal School (M), for the purpose of the administration of the Screening Inventory. The sample chosen from school (A) consisted of 28 children, 15 boys and 13 girls, of high and middle socio-economic section and the sample drawn from school (M) comprised of 30 children, 15 boys and 15 girls, of the lower socio-economic section of the society. The entire sample of 58 children was tested by the investigator. Two teachers of the kindergarten sections of schools (A) and (M) were asked to rate on the inventory a sub-sample of 18 children (from the total sample of 58 children) on the basis of their observations. This was done to find out: (i) feasibility of the inventory for the teacher's use in terms of time taken; (ii) whether the teachers could fill the inventory on the basis of their day-to-day observations in a classroom situation; and (iii) to establish a correlation, if any, between the evaluation of children by the investigator and the teachers.

Data Collection

The testing was done during the school timings convenient to the teacher. Scoring was done during the testing and any specific characteristic observed (e.g. laterality confusion, poor attention span, etc). was noted.

In each school the investigator tested the children on some of the items (e.g. Gross-motor and Finer Motor) in groups of five and on others, individually. While the teacher was evaluating the children on the inventory, the investigator was with the teacher noting her comments, points of clarification and her views on the feasibility of the inventory for the teacher's use.

Analysis

The mean and S.D. were calculated for scores of each category of the inventory, total scores of the inventory, each individual school, and for girls and boys separately. In the case of children performing 1.5 S.D. below the mean, a descriptive analysis of their performance in each category was done to determine if there were any similarities or differences in the processes involved.

Correlations between the investigator's and the teachers' rating for the sub-sample of 18 children were calculated. To determine the level of difficulty of items, each item was assessed on the percentage of children who could perform at that particular level.

Based on the analysis of the data, the item level and test procedure were modified.

Results and Discussion

The inventory, compiled after reviewing available literature and various points of consideration, has six sections with four or five items under each section. Each item was graded into six levels : 'a,b,c,d,e,f' based on available developmental norms for children in the age range of 2 1/2 - 5 years. The six sections with their respective items are:

a) **Gross-motor skills :** i) Throwing; (ii) Catching; (iii) Jumping; (iv) Climbing stairs; and (v) Running.

b) **Finer-motor skills :** (i) Building with blocks; (ii) Cutting; (iii) Coloring; (iv) Copying; and (v) Manipulating clay, dough or plasticine.

c) **Communication Skills :** (i) Language; (ii) Self identification; (iii) Intelligible speech; (iv) Conversation; and (v) Relating experience.

d) **Conceptual Skills :** (i) Concept of shape and size; (ii) Color discrimination; (ii) Concept of quantity; (iv) Listening for direction; and (v) Reading readiness.

e) **Sensory Skills :** (i) Visual perception and discrimination; (ii) Tactile discrimination; (iii) Auditory discrimination; and (iv) Visual motor performance.

f) **Affective Skills :** (i) Relating to children; (ii) Sharing; (iii) Attentiveness; and (iv) Frustration.

Comparison of scores of children on the screening inventory in terms of the school, sex and different categories revealed a marked discrepancy in the scores of children from the two schools, i.e. Alembic Vidhyalaya (A) and Fatehgunj Municipal School (M). Children from (A) performed higher in all sections, except gross-motor skills, than those from (M). This difference was attributed to the higher socio-economic level, and better learning experience of children in school (A). Within each school, mean scores of boys and girls were not markedly different.

Identification of "at risk" children with the help of the Screening Inventory showed that a varying number of children had problems in each of the sections of the inventory. The children who were found to be "at risk" in four or more categories were classified as "at risk" population for their respective schools. Analysis of the scores of these children showed their most common problem areas to be conceptual skills, affective skills and sensory skills in that order. The children showed more problems in the area of finer-motor skills than in gross-motor skills. Typical behavior patterns exhibited by the "at risk" children were short attention span, hyperactivity, impulsiveness and low frustration threshold.

Comparison of correlations between teacher and investigator rating indicated higher correlation (.78) in school (A) than in school (M) (.69). This discrepancy was highest in the areas of finer-motor skills and affective skills.

Teachers found the screening inventory to be feasible to administer but suggested that the ratings would be more accurate if time was not a limiting factor and the ratings could be supplemented by observations.

9. Sharma, M. (1983). **Criterion referenced test for spelling and reading.**

The present study aimed: (i) to develop and standardize a criterion referenced test for **reading** including five main components viz., oral reading, silent reading, listening comprehension, hearing sounds in words and word recognition; and (ii) to develop and standardize a criterion referenced test for **spelling.**

'Criterion Referenced Test' is a measure which helps to determine whether a student possesses the skills and knowledge that he should be expected to possess, at a given point of time. In the context of the study, the 'Criterion for Acceptable Performance' (CAP) referred to the average score of lower half of the successful students when the scores are arranged from lowest to highest. This score was used as the standard against which the scores of each child were compared.

Establishing Content Validity

To establish content validity, passages and word lists selected from the text books of standards I to IV, were given to two experts in the Gujarati department (M.S. University) and to 25 school teachers.

For accuracy of performance objectives, the criterion referenced tests for spelling and all the five components of reading were given to 10 experts in the field of Psychology, Education, Education Extension and Child Development.

The CRTs were approved with some minor corrections by the experts.

Pretesting

Pretesting was done by administering the CRTs for spelling and reading to top ten students from standards I, II, III, and IV of Rosary School (Gujarati medium), Baroda. These 40 students were selected in consultation with class teachers. The results of pretesting revealed the CRTs to be suitable to the abilities of the children of standards I to IV.

Standardization of CRTs

Standardization of the CRTs for spelling and reading was done on a sample of 40 children of Alembic School, Baroda. This sample of 40 children consisted of top 10 children from standards I, II, III, and IV.

The CRTs were standardized by establishing CAP for spelling and for all the five components of reading for standards I to IV.

The CRTs were thus constructed and standardized to help the teachers in education, evaluation, diagnosis and remediation.

Construction of Criterion Referenced Tests (CRTs)

The CRTs for spelling and reading were constructed for standards I to IV of Gujarati medium schools of Baroda.

For construction of the CRTs, the abilities to be tested were defined. Next the performance objectives were set after screening the text books of standards I to IV (Gujarati medium) syllabus, in terms of the content of spelling and reading tests. The performance objectives were set to include: (i) what a student must do; (ii) under what conditions the student will engage in this behavior; and (iii) how well should the student perform on the test (e.g., the performance objective of the spelling test was worked out as "to be able to write all the dictated words correctly").

Having worked out the performance objectives, CRTs for spelling and five components of reading (i.e. oral reading, silent reading, listening comprehension, listening sounds in words, and word recognition) were constructed in the following format:

Skill : defined the ability to be tested.

Task : included the behavior of the child to be tested on the skill being measured.

Materials : included the materials needed for testing the skills being measured.

Directions : were worked out for the student to whom the test will be administered and teacher who will administer the test.

Scoring : explained the procedure for scoring the skill being measured.

C.A.P. : criterion for acceptable performance in percentage.

10. Sharma, A. (1984). **Teaching-learning process and the assessment of the individual child.**

The present study was undertaken with the aim of providing a systematic approach in assessing children, and planning and implementing suitable activities for the children requiring help in their learning processes and learning skills. The objectives of the study were : (i) developing an assessment checklist, by combining items from the screening inventory developed by Alamshah (1982) and items from developmental testing records used in the nursery school, which would aid teachers in identifying problems in learning processes and learning skills of children; (ii) to help the teachers in planning, implementing and evaluating graded activities for developing essential skills and modifying them to suit the needs and levels of the child; and (iii) to suggest areas in which the nursery school curriculum can be strengthened to meet the needs for overall development of children.

Method

Sample

The total sample comprised of 80 children of the Chetan Balwadi (a laboratory nursery school of the Department of Human Development and Family Studies), 34 girls and 46 boys divided into three groups according to their age: Group I (2 1/2 - 3 1/2 years); Group II (3 1/2 - 4 1/2 years); Group III (4 1/2 - 5 1/2 years). A sub-sample of 17 children representative of the three groups was further selected from the total sample on the basis of the following criteria : (i) teacher's assessment of the children who needed special assistance in relation to the objectives of the specific group's programs; (ii) a score which was one S.D. below the mean of the group for the total scores on the assessment checklist; and (iii) a score lower than the mean scores on three or more categories out of the six categories of the checklist.

Tools

For the present study, two tools were utilized : (i) An **Assessment Checklist** which included items under seven major categories - gross motor, finer muscle, communication, sensory, conceptual and affective skills, and daily routine habits. This checklist was utilized to assess and identify the preschool children who required special help in learning processes and learning skills in various categories; (ii) **An Observation Proforma** developed on the basis of NCERT publication (1978), to evaluate the effectiveness of activities administered to individual children.

Procedure & Analysis

The entire study was done in five phases :

Phase - 1. Pilot-testing of the assessment checklist to check the feasibility of using it and to familiarize the investigator with the tool.

Phase - 2. Pre-testing the entire sample (80 children) on the assessment checklist.

Phase - 3. Having selected the sample of 17 children on the basis of the above mentioned criteria, the data were subjected to qualitative and quantitative analyses. The total mean scores, S.D., and mean scores of each category for the three age groups were calculated to delineate the specific assets and lags of the selected 17 children. The data thus gained were utilized to develop profiles for each child. The profiles described the child's assets, lags and facets to be kept in mind while planning and implementing the program, besides suggesting activities for overcoming the lags.

The following aspects were kept in mind in planning the activities in a graded manner: (i) specific objectives should be formulated under each area, as these help to give direction to the whole program; (ii) each skill/ability should be broken down into small steps to enable the child to acquire the skill easily and in a fast manner; and (iii) the activities to be planned should be selected from the activities normally given in the Nursery School Program.

Phase - 4. Program implementation and observation of the children. In this phase, the children (belonging to the sub-sample) who had similar lags and assets were clustered together. Three children from group II and two children from group III were treated individually while planning and implementing the program, as each of these children had a unique set of characteristics.

The program was implemented for eight weeks. The children were observed for a minimum of two times per activity. The recorded observations in terms of activity, performance of the child and comments for further planning were incorporated in developing activities for children. These were then shared with the teachers at the interval of four weeks.

Phase - 5. The children were post-tested two weeks after program completion.

Results and Discussion

The pretest-post-test difference revealed that most of the children gained over their pretest scores. However, the children from Group I (2 1/2 - 3 1/2 years) gained consistently in comparison to the children of the other groups. Inspite of the similarity of approach in planning activities for the children, differences in gains of the children were observed. This could be attributed to the complexity of factors associated with the lags observed in children, individual differences and irregular attendance.

While analysing the data for delineating the areas needing emphases in curriculum planning, it was observed that Group I (children between the age of 2 1/2 - 3 1/2 years) required emphasis in the categories of catching, copying, use of tactile sense, and concept of color. Group II (3 1/2 - 4 1/2 years) and III (4 1/2 - 5 1/2 years) required emphases in categories of throwing, catching, use of tactile senses, concept of color, concept of quantity, and copying.

An assessment of the efficacy of the program implemented revealed the feasibility of a strategy of systematic approach to assessing children, planning and implementation of graded activities in enabling the nursery school to cater to the overall development of each child. Teacher's role in utilizing the various teaching techniques and in providing guidance, encouragement and individual attention to the child played an important role in the accomplishments and motivation of children. It was also observed that dividing children into smaller groups according to their needs and levels facilitated planning and implementation of graded activities.

For program modification, it has been suggested that organized games and activities should be planned and emphasized to enhance the finer skills of eye-hand coordination needed to develop the ability to throw and catch. It has also been observed that there is a need for promoting sensory skills and concept of color.

Some implications and recommendations for the use of the assessment checklist have been presented.

11. Roy, G., & Misra, S. (1985). **Assessment checklist for preschool children : Establishing validity and reliability.**

The aim of the present study was to develop an assessment checklist to be used by nursery school teachers to assess the developmental abilities in preschool children. This involved three specific objectives: (i) to establish content and construct validity of the checklist; (ii) to field-test the checklist on a representative sample of preschool children across age, sex and socio-economic status (SES); and (iii) to establish the test-retest reliability of the checklist.

Method

Sample

The sample consisted of 450 preschool children (225 girls and 225 boys) between the age group of 2 1/2 - 5 1/2 years, from low, middle and high SES groups. The sample was selected from 14 private and 14 municipal corporation, Gujarati medium, nursery schools of Baroda on the basis of the following criteria: The children (i) should have attended school regularly; (ii) should not have been absent from school for more than two weeks; and (iii) should not have any kind of mental or physical handicap.

Tools

The content of the assessment checklist was formulated from the following: (i) 'Screening inventory for the early years' (Alamshah, 1982); (ii) review of the following literature: Measurement of Maturation, Volume II (Boyer, Simm & Karafin, 1973), Developmental indicators for the Assessment of Learning (Mardell & Goldenberg, 1975), Keele Preschool Assessment Guide (Tyler & Foy, 1978), and other available tests and material; (iii) Assessment checklist for preschool children (1984), which included items from the Developmental Testing Records of Chetan Balwadi, a laboratory nursery school at M.S. University of Baroda; and (iv) suggestions given by experts in the fields of Psychology, Education and Child Development.

The content of the checklist covered five major areas representing the developmental aspects important to the age group of 2 1/2 - 5 1/2 years. These areas were : Gross motor skills; Finer motor skills; Conceptual and Readiness skills; Language skills; and Personal-social skills.

Procedure & Analysis

Items were stated behaviorally to render them observable to a class teacher. Use of simple and clear language was emphasized and wherever necessary, relevant illustrations were added to the items. Each item of the checklist was represented by four statements (a,b,c,d). The first three were arranged according to age levels in order of increasing difficulty and the last statement denoted negative - or non-performance. Care was taken to ensure that the items remained mutually exclusive to enable the teacher to decide on a level that best represented the child's performance.

Field testing of the checklist and establishing validity and reliability involved five steps:

Step - I : Establishing content validity.

The checklist was evaluated by 16 experts in the field of Psychology, Education and Child Development, to examine the content of the checklist in terms of its coverage, clarity, validity and feasibility. Based on the suggestions of 16 experts who evaluated the checklist, necessary modifications were made. The modified checklist consisted of 28 items grouped under five sections : Gross motor skills; Finer motor skills; Conceptual readiness skills; Language skills; and Personal-social skills.

Step - II : Judging the relevance of the items.

The checklist was given to 55 teachers of 450 preschool children. Each teacher was given a brief orientation to the objectives of the study, the content of the tool and the arrangement of the items, and was *asked to assess the children* on the basis of her knowledge regarding the child's level of performance as obtained through daily observations. Verbal and written instructions were given. To avoid monotony and fatigue, each teacher was asked to assess only 6-8 children.

The relevance of items for different age groups was judged on the basis of two major considerations:

a) percentage of children performing at different age levels; and

b) percentage distribution of children across age and levels of each item.

Step - III : Measuring internal consistency.

For this purpose, a sample of 100 children who represented three levels of scores (viz, high, middle and low scores) was selected. The performance of these children was then scored and item-subtest correlations were computed for each of the 28 items through Point Biserial Correlation.

Step - IV : Establishing construct validity.

Construct validity of the assessment checklist was established by drawing correlations between the scores obtained by a sub-sample of 108 children on the checklist, and those obtained on the item list of NCERT.

Step - V : Establishing reliability.

The reliability of the checklist was established through the test-retest method with a sub-sample of 108 children.

Results and Discussion

The final version of the checklist thus consisted of 28 items with 3 age level statements, each being appropriate for a particular age group (2 1/2 - 3 1/2 years, 3 1/2 - 4 1/2 years and 4 1/2 - 5 1/2 years), and a fourth statement connoting negative - or non-performance. The division of items under the five subsections was:-

a. **Gross motor skills :** (i) throwing, (ii) catching, (iii) jumping, (iv) ascending steps, (v) descending' steps, (vi) running.

b. **Finer motor skills :** (i) block building, (ii) cutting, (iii) paper folding, (iv) clay/dough/plasticine moulding, (v) threading, (vi) coloring.

c. **Conceptual and readiness skills :** (i) concept of shape, (ii) concept of color, (iii) concept of time, (iv) concept of quantity, (v) following directions, (vi) auditory discrimination, (vii) visual discrimination, (viii) copying.

d. **Language skills :** (i) vocabulary, (ii) intelligible speech, (iii) conversation, (iv) relating experiences, (v) self identification.

e. **Personal-social skills :** (i) relating to children, (ii) sharing, (iii) attentiveness.

Internal consistency computed by calculating correlations of items scores with the sub-section scores was high with correlations varying between 0.72 and 0.89, indicating high internal homogeniety of the checklist. Construct validity of the assessment checklist reflected by the correlations between scores obtained by children on the checklist and the NCERT item list were 0.85 and 0.87 for motor and conceptual readiness skills and 0.70 and 0.82 for language and personal-social skills respectively. The test-retest correlation revealed the reliability to be high (i.e. 0.96). The results indicated that the checklist lent itself well to assessment of children's abilities over the various domains of development.

Further analysis revealed that children from high SES surpass those from middle and low SES in all aspects of development. Moreover, girls were found to perform better than boys in all the developmental skills that were included in the assessment checklist.

12. Bakshi, A. (1986). **Construction of a test battery to identify creative behavior in preschoolers.**

The present study aimed at the construction of a multi-dimensional test battery, conducive to classroom application, to identify creative behavior in preschoolers aged four and five years. Specifically, the study aimed: (i) to scrutinize and select appropriate items/exercises for the construction of a tool of creativity, from various tools cited in literature; (ii) to determine preschool classroom situations, or exercises suitable for the elicitation and assessment of creative behavior, to aid construction of the tool; (iii) to construct a test of creative behavior that is conducive to classroom application for preschoolers, and field test the same. The study also aimed (iv) to subject the developed test battery to content, construct, and criterion related validation procedures; and (v) to compute internal consistency of the tool.

Creative behavior was defined as that which reflects sensitivity to the environment, a questioning, probing, discovering attitude in working with objects and ideas, and arriving at numerous, different, and unique ways of solving problems.

Procedure

The procedure adopted for the construction of a test battery to identify creative behavior in preschoolers, spanned three phases.

Phase - I

For constructing the test battery to identify creative behavior in 4 and 5 year olds, relevant literature was studied. This literature included theory and research available, especially pertaining to construction and use of available tools, in the area of creativity.

Preschool classroom situations pertinent to and modifiable for the assessment of creative behavior were examined. The sample for this phase consisted of three preschool classrooms in the Indian Petrochemicals Corporation Limited (IPCL) kindergarten. Observations were carried out in sessions of 1 1/2 - 2 hours a day on 6 days spanning two weeks.

Phase - II

From the results of Phase I, a list of possible items or subtests was formulated and using a set of criteria, 7 subtests from this list were selected and field tested. The field testing was done on a small sample (n=6) of 4 and 5 year olds. On the basis of the field test results, modifications and refinements were made in task/subtest description, creative ability measured by subtest, rationale for selection of subtest in test battery, and the administration and scoring procedures of the subtest.

Phase - III

In the final phase of the study, the developed test battery was subjected to validation and initial reliability testing procedure. In order to obtain validity coefficients and compute internal consistency of the tool, the developed test battery was administered to a sample of 50, 4 and 5 year olds. Apart from the developed test battery, Phatak's Draw a Man Test, a measure of intelligence and two Teachers Rating Scales (TRS) used by the teacher to rate each child's behavior, were administered. These were used for assessment of discriminant validity.

Results

The test battery developed consisted of three measures of Fluency, Flexibility, Elaboration, and Originality and two measures of Fantasy Predisposition.

A. **Measures of Fluency, Flexibility, Elaboration and Originality.**

1. **Picture construction test :** Generating scores for both figural and verbal creativity, this test requires the child to tell the examiner/investigator what all a folded paper could be, and to select one response to construct a picture using the folded paper as part of the picture. On finishing the picture, the child tells the examiner what all he has drawn/depicted in the picture.

2. **The circles task :** Requiring mainly figural responses, in this test the child draws as many objects as he/she can, using a circle or circles as part of the form of the object. Later the child tells the examiner what all he has drawn.

3. **The unusual uses of a stick task :** A verbal measure, it requires that the child tell the examiner all possible uses of a stick.

B. **Measures of Fantasy Predisposition .**

1. **String picture task :** Child responds to what all he/she can see in two string pictures made by him/her.

2. **The crayoning task :** Children's crayoning and talk about their picture generates scores for both verbal and figural creativity.

The test was found to have face and content validity. Predictions of discriminant validation in relation to distinction from intelligence as tested by Phatak's Draw a Man Test and academic achievement as assessed by teachers were affirmed.

The test battery correlated significantly with Moran's (1983) criterion measures which assess original problem solving, and with one of his predictor measures, namely, fantasy predisposition. It was found that differences in operationalization of creativity tended to lower validity coefficients obtained between two creativity tests, (i.e., the test battery and Torrance Tests of Creative Thinking). Teacher's ratings were found to be an inadequate criterion.

D. TRAINING OF EARLY CHILDHOOD CARE AND EDUCATION (ECCE) WORKERS

13. Mankodi, H. (1982). **Developing an in-service training program for teachers of young children.**

The present study was a part of the project on 'School Readiness', undertaken by the Department of Human Development and Family Studies in collaboration with Baroda Municipal Corporation, for teachers of young children. The objectives of the study were: (i) to prepare and develop a module of an in-service training program for standard I teachers of Nagar Prathmik Shikshan Samiti (NPSS) schools of Baroda Municipal Corporation (BMC) with special reference to school readiness; (ii) based on this module to develop an in-service teacher training program with specific subject matter and detailed lesson plans; and (iii) to implement and evaluate the in-service teacher training program.

Method

Sample

The total sample consisted of 25 standard I teachers of NPSS schools of BMC. Seventeen of these teachers were females and 8 were males.

The major criteria for the selection of the sample were: (i) sample should comprise of grade I teachers of NPSS schools; (ii) it should represent each ward of the BMC; and (iii) sample selected should consist of teachers with many years of teaching experience as well as those with few years of teaching experience.

Of the 25 teachers of NPSS schools, five teachers had prior exposure of undergoing an in-service teacher training program offered and conducted by the Department of Human Development & Family Studies, M.S. University. They formed the resource personnel.

Tools

The tools utilized for the present study were:

1. **Pre-evaluation Questionnaire :** This questionnaire was utilized to gather information regarding the teachers' educational and experiential background and to gain insights into their knowledge regarding : (i) planning and curriculum implementation; (ii) children and their needs; (iii) functions of a supervisor; (iv) general idea or view point on the in-service training program in which they were to participate.

2. **Post-evaluation Questionnaire :** In order to study the effectiveness of the program offered during the in-service training in terms

of method and content, a post-evaluation questionnaire was prepared. The three major sub-components of this questionnaire were : (i) evaluation of the program in terms of its need, efficacy of methods used, content, gains made by the participants (if any), and use and preparation of teaching aids for the classroom; (ii) views of the participants on resource personnel who were also participating members of the in-service training program; and (iii) the third sub-component of this questionnaire consisted of additional questions for the five resource personnel only. These questions dealt with the comparative picture of the two programs they had attended.

3. **Daily Evaluation Criteria :** This schedule was prepared to get feedback from the participants regarding the content of experience offered during each session, gains made and difficulties encountered by the participants, and methods used to impart information on the planned content.

Procedure

A ten day in-service training for standard I teachers of the NPSS schools was organized after contacting the BMC and the office of NPSS for permission for the standard I teachers to participate in the program, and once the sample was selected to notify the concerned teachers.

Prior to the commencement of the training program, the 25 teachers were administered the pre-evaluation questionnaire. The major components of the program were: (i) Language; (ii) Reading and writing; (iii) Mathematics; (iv) Social studies; and (v) Science. Approximately two days were alloted to each area of school readiness mentioned above. The program sessions were conducted through the following methods: talks, observations in a laboratory nursery school, Chetan Balwadi, discussions, presentations, demonstrations, workshops and practice teaching. The participants were provided with necessary guidelines for observations and discussion, according to the topic for that day. Five resource persons were involved in program planning and implementation.

Analysis

The data were analysed qualitatively as well as in terms of frequencies of responses obtained for each question. Each tool was divided into sub-categories, the responses were calculated for each of these categories and presented in a tabular form.

Results and Discussion

Based on the participants' responses to the pre-evaluation questionnaire, it was observed that all the respondents recognized the need for pre-primary education and the school readiness program, and pointed out that irregularity in attending schools and lack of co-operation and co-ordination of parents were factors contributing to wastage and stagnation. Most of the participants expected the supervisor to provide guidance and encouragement to the teacher and help them correct their mistakes.

Responses to the post-evaluation questionnaire revealed that: (i) participants found the program to be detailed, interesting, adequate, practical, appropriate and relevant; (ii) the methods of observation, small group discussions, workshop sessions and demonstration of aids were considered to be most effective; (iii) most of the participants and the resource personnel felt that attending the in-service training program brought about awareness in using new methods of teaching and of the impact of modern trends in Child Development on Education.

The major gains made by the participants were : (a) change of attitude in the use of more innovative methods of teaching, and (b) maximum use of audio-visual aids to provide concrete experiences to children. The resource personnel participated actively at the time of implementation of the program.

Lastly, the findings reveal that the planned program can be transferred to a module with few modifications, as the content was felt to be adequate and the methods employed to be effective.

14. Bhuyan, R.K. (1983). **Development of a list of competencies for a standard I teacher of municipal schools.**

The present study was undertaken with the major objective of developing a list of competencies in the areas of knowledge, skills and personal qualities required by a standard I teacher of municipal schools. This list was prepared on the basis of : (i) previous studies done in the Department of Human Development and Family Studies; (ii) available research literature in the field; (iii) observations of teachers during teaching situations; (iv) opinions of standard I teachers of Nagar Prathmik Shikshan Samiti (NPSS) schools regarding knowledge and skills required by a teacher to teach young children; (v) opinions of the principals and supervisors of NPSS schools and private Gujarati medium schools, regarding personal qualities required by a teacher of NPSS schools.

Method

Sample

Sample-A : consisted of 20 standard I teachers of NPSS schools. These teachers had been in the teaching profession for at least 5 years, and half of them had received in-service training provided by the Department of Human Development and Family Studies in the year 1981-82. The sample was selected from a list of standard I teachers of Gujarati medium schools provided by the NPSS on the basis of the following criteria : (i) all the teachers should be teaching in standard I of municipal schools with Gujarati as the medium of instruction; (ii) they should have been in the teaching profession for at least 5 years; (iii) for the convenience of the investigator, the sample was to be chosen from the schools that were centrally located in the city of Baroda.

Sample-B : comprised of 6 principals and 6 supervisors, 3 each from private schools and NPSS schools. One of the criteria for sample selection was a minimum job experience of two years. The municipal school supervisors and principals were selected randomly from the schools from which sample A had been chosen. The private school supervisors and principals were from three randomly selected schools.

Tools

The tools for the present study were constructed by the investigator.

1. **Observation checklist :** This checklist was constructed in order to have a guideline for observing teachers in the classroom and contained a list of observable behavior in the areas of knowledge, skills and personal qualities.

2. **Interview schedule for teachers :** The schedule included items on background information, job responsibilities and knowledge content of the teachers.

3. **Interview schedule for principals and supervisors :** This tool mainly dealt with general questions regarding the knowledge, skills, personal qualities, job responsibilities, and qualifications required of a standard I teacher.

4. **The rating scale :** This tool was designed to test the essentiality of the items on a list of competencies prepared on the basis of the investigator's observations, and responses obtained from teachers, principals and supervisors. The rating scale had a section each on knowledge, skills, and personal qualities. The 134 items of the list were rated on a three point scale - essential, desirable and unnecessary.

Procedure and Analysis

After the tools were constructed, a pilot study was conducted: (i) to familiarize the investigators with the tools; (ii) to establish inter-rater reliability; (iii) to find out the most convenient times for observation; (iv) to find out whether any item needed to be deleted or added; and (v) to find out the amount of time required for each interview.

Based on the findings of the pilot study, it was decided that during data collection, the teacher would be observed in two blocks of time twice a week. The direct observations were transferred to the checklist on the very same day. Once the observation of a teacher was completed, the interview of that teacher was conducted.

For the interviews of supervisors and principals, prior appointments were taken and the interviews held at their respective places of work. Based on the responses of teachers, principals and supervisors interviewed, a list of 134 competencies was formulated and rated by 15 experts on a three point scale viz., essential, desirable and unnecessary. A weighted score of '2' was assigned to items marked 'essential' and '1' to items marked 'desirable'. The items scoring a minimum of 76 percent gained the status of essentiality and were retained in the final list of competencies.

Results and Discussion

1. List of Competencies :

The resultant list of competencies consisted of 74 items related to knowledge, skills and personal qualities:

a) Knowledge in the areas of growth and development of children, learning process of children, importance of health and hygiene, working with parents and community, organization of program and subject matter was empasized.

b) Skills included communication skills, teaching skills, administrative skills, organizational skills and skills in guiding.

c) Personal qualities considered essential were being approachable, accepting, affectionate, co-operative, cheerful, patient, resourceful and having a positive attitude towards children.

2. A major finding of the study was that the teachers, principals and private school supervisors felt that the municipal school teachers were overloaded with work. A major implication that emerged from the study was that the training course of the teachers should be strengthened in the light of the competencies considered essential by both teachers and administrators.

15. Verma, A., and Saraswathi, T.S. (1983). **The child development curriculum and its relevance to job competencies expected in the field.** Mimeographed Report, M.S. University of Baroda, Baroda.

The study was undertaken with the aim of achieving a two-fold purpose of giving a feedback for curriculum revision, and also suggesting job possibilities, both for the present and future, thereby facilitating effective job placement of child development graduates. The main objectives of the research project were : (i) to identify the nature of jobs taken up by the alumni of the Department of Human Development and Family Studies, M.S. University, and the competencies required in the job; (ii) to evaluate the extent to which the curriculum of the department has helped the alumni in developing these competencies; and (iii) to make necessary modifications in the curriculum with the view of increasing its relevance in the light of the competencies expected in the field.

Method

Sample

Three sample sets were selected for the study (i) 440 names and addresses were identified from the enrollment registers. The number of alumni who responded to the initial questionnaire were 197 (71 M.Scs; 66 B.Scs; and 60 Post-Graduate Diploma holders); (ii) based on the information received from the above, as well as additional contact addresses obtained from them, 215 alumni who had been employed at some period or the other after graduation, were contacted through a second questionnaire. Of these 107 responded (44 M.Scs; 31 B.Scs; 32 Post-Graduate Diploma holders); and (iii) 41 experts in the field of Child Development and related disciplines were interviewed on their opinions regarding the child development training program. The interviewees hailed from Baroda, Ahmedabad, Bombay, Poona, New Delhi, Udaipur, Madras, Bangalore and Mysore.

Tools

The following tools were utilized for the present study:

1. **A semi-structured questionnaire** was used for obtaining preliminary background information from the alumni, as well as some generic feedback on the curriculum and alumni's professional experience.

2. **A structured questionnaire** was used to obtain information on competencies required for various job positions. The specified competencies were related to knowledge, abilities, skills and personal qualities of the respondent. These were followed by some open-ended questions seeking recommendations for improving the curriculum.

3. The tool used with the experts and employers consisted of **an Unstructured Open ended Schedule** which sought information on jobs held by child development workers, responsibilities associated with these jobs and competencies required to fulfill these responsibilities, gaps in the training, need for para-professional child development workers, and related information.

Procedure

The alumni were posted the semi-structured questionnaire for obtaining their background information. After an interval of two months, two sets of reminders were sent to ensure maximum return. The second questionnaire i.e., the structured questionnaire to obtain information on competencies required in various job positions, was posted to the alumni after ensuring their co-operation and cross-checking whether they had received the first schedule.

Interviews of the experts were conducted in various cities after obtaining prior appointments from them. A framework of the interview questions was sent at least a week prior to the interview, in order to obtain well considered opinions. In two cases where the appointments were cancelled, the interviewees responded by mail.

Analysis

Data from each of the three sources were grouped into categories and analysed qualitatively and quantitatively. Quantitative analysis involved calculation of frequencies for various sub-categories of the schedules. The data were then presented in an integrated manner highlighting the recommendations that emerged for revitalizing the child development curriculum.

Results and Discussion

Child Development Curriculum and Its Relevance to Job Competencies Required in the Field (Responses of Alumni, n = 107)

1. **Areas of knowledge considered important**

   Knowledge of Human Relations and Behavior, Individual Differences, and Parent and Community Education received high emphasis. Knowledge of case-work techniques was emphasized by all the respondents (i.e., university and school teachers) except research workers. Selected areas (viz., Family and Society, Early Childhood Education, Special Education etc.) were emphasized only by those who held specific job positions.

2. Abilities considered important

Majority of respondents considered the following abilities to be important : (i) **cognitive competencies,** like long range vision, clarity of thought, creative thinking, proper perspective, etc.; (ii) **social competencies,** like ability to put across an idea lucidly, ability to arouse the interest and motivation of a group, to understand one's own role in the group work in co-ordination with others, to build up morale, to identify assets and limitations, to assign tasks and responsibilities according to abilities and interests, to plan and set appropriate objectives; and ability to provide guidance and counselling, etc.; (iii) other abilities which received a high rating from the group on the whole included ability to handle emergencies, to maintain and promote professional ethics, to maintain records etc.

3. Skills considered important

Skills emphasized by a large majority of respondents included those involved in working with others, management and communication skills, efficiency, neatness and systematic organization, and recording and filing. Skills in interviewing were considered important only by research workers and social workers; and skills in guidance and counselling were considered important by university and school teachers and social workers. Skills in the use of psychological tests and in preparation and use of audio-visual aids were rated as low in importance by a majority of respondents.

4. Personal qualities considered important

Personal qualities considered important by all categories of employers included those related to cognitive competence and social competence.

Recommendations for Enriching the Child Development Curriculum

(Suggestions from experts and employers, n=41)

An urgent need to include courses related to Child Health and Nutrition, Infancy, Special Education for the Handicapped and Exceptional Children, and Psychological Measurement was recognized. It was suggested that a number of other optional courses should be offered and existing courses in Research Methods and Statistics, Family and Child Welfare, and Family and Society should be strengthened.

In terms of practical training, the experts suggested that the trainees should be exposed to varied and intensive field experiences especially with the underprivileged urban, tribal and rural population and should adopt an interactional and participatory approach in field training.

Specific recommendations for the Child Development Department's (now Department of Human Development and Family Studies) curriculum at M.S. University were also given.

Current and Future Career Opportunities Available to Child Development Graduates.

Specialists in Child Development and allied disciplines, as well as employed child development graduates were asked to express their opinions regarding the current and future job prospects in the field. The results of the survey indicated that Child Development graduates are and can be effective as university and school teachers, researchers, administrators/ supervisors, trainers of para-professional workers, counsellors, consultants, authors/writers, curators (in children's section in a museum) and as entrepreneurs manufacturing children's toys, clothes, foods and equipment. Child Development graduates were also found to be successful in welfare settings, development projects, educational, recreational and institutional settings and in hospital settings.

A number of Child Development graduates were found to be self-employed in settings such as nursery schools, child guidance clinics and in mass communication, such as producing and directing films, scripting for television and radio programs and free-lance journalism, especially in women's magazines.

16. Mishra, B. (1984). **A module for training supervisors in the field of early childhood education.**

The study aimed to develop a module for training supervisors in the field of Early Childhood Education (ECE). To achieve this aim the major components of the study involved: (i) finding out the job responsibilities of the supervisors of municipal schools and private Gujarati medium schools of Baroda; and (ii) finding out the opinions of municipal school and private Gujarati medium school supervisors of Baroda, regarding the knowledge, skills, and personal qualities required for a supervisor.

Method

Sample

The sample for the present study included the pre-primary and primary school supervisors of the Nagar Prathmik Shikshan Samiti (NPSS), run by the Baroda Municipal Corporation (BMC), and the private Gujarati medium schools of Baroda. Twelve supervisors, five each from NPSS and Gujarati medium schools and two experts with 15 years of experience in supervision were selected.

Tool/Test

The investigator formulated an open-ended interview schedule to find out the job responsibilities of supervisors and to obtain their opinion on the knowledge, skills, and personal qualities required in supervision of pre-primary and primary schools.

The tool consisted of the following areas : (i) background information; (ii) job responsibilities of the supervisors; (iii) opinions regarding the qualifications, knowledge, skills, and qualities of a supervisor; (iv) opinions regarding the major tasks and roles a supervisor plays; (vi) opinions regarding methods of supervision; and (vii) opinions regarding planning and evaluation of a supervisory program.

The questions for the tool were prepared by referring to earlier related studies done in the department, field work manual of the department, and other available literature.

The tool was given to five experts from the fields of Child Development and Social Work who had practical experience in supervision.

Procedure

After pilot testing and making changes in the schedule on the basis of the results of the pilot study, the interviews of the supervisors were conducted. The supervisors were interviewed very informally. The responses were noted down on the spot and later transferred to the data sheets.

Analysis

For the purpose of analysis, the responses obtained from the interviews were grouped together and listed under each area of the tool separately, and frequencies were calculated.

Results and Discussion

The results of the present study indicated that the supervisory practices of the present sample needed strengthening. Their expectations and perceptions were more towards peripheral aspects rather than the educational process itself. The opinions of the supervisors regarding the essential qualities and skills were spread over a wide range. They had no definite idea about the major tasks of a supervisor, his/her roles and limits within which he/she functions.

Though the supervisors felt the need for training in supervision, they had no clear idea about specific need areas. Similarly while the supervisors realized the need for planning and evaluation of a supervisory program, their perception about what should be planned and evaluated was very limited. Their opinions regarding planning were more in terms of deciding dates of meetings and co-curricular activities.

The Module

The results pointed out the need for the module to start from giving basic information. The module consists of the following:

1. Introduction of the module for the trainer.

2. Assessment of the trainer's knowledge about supervision and orientation to the program.

Unit 1 : Concept, need and importance of supervision.

Unit 2 : The knowledge, skills, and personal qualities essential in supervision.

Unit 3 : Major tasks and methods of supervision.

Unit 4 : Planning and evaluation of a supervisory program.

Each unit of the module consists of:

a Introduction of the unit.

b. Objectives and instructions.

c. Content, procedure and activities.

d. Progress - checks for activities.

e. Evaluation of the unit.

17. Kaul, S. (1984). **Competency evaluation guideline : A tool for training child development aides.**

The present study attempted to revise and modify a competency list utilized for monitoring the training and evaluation of the students of the Under Graduate Diploma course in Child Development at the Department of Human Development and Family Studies. The specific objectives of the study involved: (i) identification of progressive levels of competencies in the guideline for training child development aides; (ii) specification of the behavioral indicators of the competency levels in the guideline; and (iii) using the guideline in the field in order to check its efficacy.

Method

Sample

For the present study the sample comprised of: (i) 14 staff members from the above mentioned department. These members were chosen from the teaching staff who had supervised the Under Graduate (U.G.) Diploma students for their field work; (ii) 15 junior and 16 senior U.G. Diploma students who were to be rated by the above mentioned sample of staff members; (iii) 9 agency personnel who were directly supervising students in the agency settings of Early Childhood Education, Child Welfare and Children with Special Needs; and (iv) 6 experts in Child Development and Early Childhood Education from among the staff of the Department.

Procedure and Analysis

The entire procedure of modifying the competency list involved 5 steps:

Step-I : The items of the list of competencies, used for evaluating the trainees in the Department, were examined for their degree of complexity, and were stated progressively in terms of the levels of competency they represented. Examples of behavioral indicators of those items were also derived to help the teachers identify a student's level of functioning. Each level had an accompanying 3-point scale of "Always/ Usually/Sometimes" to discriminate between the trainees' frequency of functioning at a particular level.

Step-II : Involved determining the appropriateness of the guideline framed by the investigator. Fourteen department staff and 9 members of agency staff were interviewed regarding the adequacy and appropriateness of the guideline. Their suggestions were incorporated by making appropriate changes and the guideline modified accordingly. Thus modified "Research Tool II" was prepared.

Step-III : Before the guideline was field tested, the department staff members were oriented to the procedure for using the guideline. The department staff then field tested the "Research Tool II" by using it to evaluate junior and senior U.G. Diploma students in the regular field work program for the semester 'November 1983 to April 1984' in the settings of Early Childhood Education and Children with Special Needs. For obtaining information about the guideline as a result of its pilot testing, the investigator obtained the reactions of the sample (i.e. the departmental staff) regarding its efficacy.

Step-IV : After the guideline was field tested, responses were also obtained from agency personnel. The objective for doing so was to determine the feasibility of agency personnel assessing the students during the course of their placement in that agency.

Step-V : Involved obtaining the responses of the experts, namely 9 agency personnel and 6 experts in Child Development and Early Childhood Education among the staff of the department.

Information obtained through the above (Steps III, IV and V) was then incorporated into the guideline and appropriate changes/modifications were made. The outcome was a Final Competency Evaluation Guideline.

The discriminative ability of levels in differentiating between Junior and Senior U.G. Diploma students in their performance was determined by using the Median Test. The statistical significance determined with the help of chi-square was high, indicating high discriminability. In order to find out the validity of each item of the tool, internal consistency of the tool was determined by computing item to total correlations. Of the total seventeen items, six items showed a negative correlation to the total. These were modified as per the suggestions of the expert panel.

Results and Discussion

Based on the quantitative and qualitative analyses of the data obtained, a "Final Competency Evaluation Guideline" was prepared, with special reference to the training program of U.G. Diploma in Child Development. The final version of the competency guideline is divided into the following areas:

(1) Pre-requisite background knowledge

(2) Written submission

  (i) Planning reports

  (ii) Evaluation reports.

(3) Meetings

(4) Program implementation

(5) Qualities : Personal and professional.

All items under each area have three progressive levels. An example of behavioral indicator is stated against each level. Each level has an accompanying three point frequency scale of Almost-Always/Sometimes/Rarely.

The use of the competency evaluation guideline for training workers in creches and foundling homes, in national programs like Integrated Child Development Services (ICDS) and for welfare programs catering to children with special needs has been recommended. However, there is a need for determining the empirical efficacy of those items modified after the field testing and for standardization of the tool to ensure its validity and reliability.

E. EDUCATIONAL PLAY MATERIALS

18. Garg, J. (1984). **Educational play materials, toys, and books, for young children.**

The broad objective of the present investigation was to locate and list available ready made resource materials, so as to aid the preschool teachers in making the preschool programme more effective. To achieve this aim it was essential (i) to prepare a list of ready made resource materials and equipments that would aid the preschool curriculum in the areas of gross motor development, science and mathematics, language development (which includes dramatic play, literature, and creative music activities), creative art activities; and (ii) to prepare a guideline which would aid teachers in using the available ready made resource materials while providing activities to the children in different areas of preschool.

Procedure

The addresses of manufacturers and publishers in India were obtained from various sources like schools and institutions catering to children in the city of Baroda and Ahmedabad. The manufacturers and publishers were informed, through letters and by personal visits, regarding the purpose of the study. Catalogues of educational toys and play materials manufactured and the children's books published by them were then obtained. On obtaining the catalogues, a list was prepared by grouping the items according to the specific concept or development (eg., gross motor, science, mathematics, language, creative art) they foster, along with the price of each item. This price list would help the school administrators and teachers in the purchase of essential materials and equipments for the preschool children.

An exhibition-cum-sale of children's books, educational toys and play materials was organized from 2nd to 4th March, 1984 (both days inclusive). The venue for the exhibition was Faculty of Home Science, M.S. University of Baroda. The aim of the exhibition was to provide an exposure of a wide variety of available educational play materials and books for young children, to the parents and teachers of Baroda. The exhibition was jointly held by three organizations of Baroda concerned with children namely, 'The Department of Human Development and Family Studies', 'The Bal Bhavan Society', and 'The Indian Association for Preschool Education, Baroda Branch'. On the occasion of the exhibition-cum-sale a directory of addresses of manufacturers of educational play materials and publishers of children's books was released. The directory was distributed to the school administrators, teachers, parents and child development students and workers, to aid them in the purchase of materials for children. The directory, priced at Rs.2/-, is available on request from the Department of Human Development and Family Studies.

Discussion

The rationale for the present study was derived from the observation that there was a lack of knowledge regarding the importance of and need for educational play materials as a means of providing first hand concrete experiences to children. Due to this lack of knowledge, teachers are unable to provide appropriate experiences to children in order to promote their overall development. The availability of the needed materials would, thus, not only help in promoting the children's overall development but would also enable the teacher to handle a large number of children in the classroom by providing them with a wide variety of materials.

Scrutiny of the educational play materials, toys and books obtained during the present investigation revealed that most educational toys were variations of Montessori materials and although there existed very little variation in the quality of the educational toys, the price range for the same item varied from manufacturer to manufacturer.

Majority of the games and toys were found to be imitations of western equipments and were available in a large variety, with a wide price range and varying quality. Puppets were a rare commodity, except for one type of puppets, that is 'Snoopy', a western character, which is a sad reflection on a culture so rich in puppetry.

The investigation revealed that a fair amount of material for language and mathematics development is available in English as well as several regional languages. Books are available in many regional languages and cater to different age groups of children.

F. SPECIAL ICDS PROGRAM

19. Bakshi, A. (1986). **Performance of primary school children with and without ICDS exposure.**

The present study was a part of a project on 'Monitoring and evaluation of the non-formal preschool education component of ICDS' undertaken by the Department of Human Development and Family Studies. The study aimed: (i) to compare the performance of children from ICDS (Integrated Child Development Scheme) and non-ICDS groups (i.e., children not exposed to any preschool setting) in the first, second and third grades; and (ii) to compare the performance of the children, from ICDS Anganwadis (AWs) ranked as poor and good, in the first three grades.

Method

Sample

The sample consisted of 92 children from the first three grades of a local municipal corporation school. Of these children, 41 were exposed to an AW ranked poor on the investigator's observation proforma, and 51 children had no preschool experience. For the purpose of comparing the performance of children exposed to poor and good AWs, data collected by Jain (1986) was used.

Tools

Data were obtained through the following tools:

1. **Reading Readiness Test (RRT) :** A standardized test developed by Umarajwala (1977). RRT aims to assess the reading readiness of preschoolers to first grade. The tool manual provides guidelines for scoring and for converting scores into performance level.

2. **Graded Word Test (GWT) :** This is a dictation test developed by Mohite (1983) consisting of 40 words each for the first four grades of primary schools. A score of one is given for every correctly written word.

3. **Teachers' Rating Scale (TRS) :** Developed by Mohite (1983) and standardized by Shastri and Ramanathan (1984), TRS aims to identify children who face difficulties in learning to read and write.

4. **School Adjustment Scale (SAS) :** This tool indicates the Anganwadi's role in child's development for school readiness.

Procedure

The RRT and GWT were administered by the investigator and TRS and SAS were given to the class teachers to rate the children, based on their observations of each child.

Analysis

Data for each measure were analysed separately. Scores obtained by the students on RRT were analysed by Analysis of Covariance and chi-square test of independence. Scores obtained on GWT were subjected to ANOVA. Ratings on TRS and SAS, and scholastic achievement scores were analysed separately by the chi-square method.

Results and Discussion

The overall picture that emerged was 'fuzzy', though trends were seen in favour of the exposed children when the group was viewed as a whole.

Findings of the study revealed that the academic performance of children exposed to the Anganwadi (AW) rated as very poor was almost equal to that of the non-exposed children. There was a trend towards better social adjustment in children who attended even poor quality AW, though the results were statistically not significant.

Comparison between exposed children of a good and a poor AW revealed that on the dimension of academic performance, children coming from good AW performed slightly better than those from the poor AW on RRT, GWT and Scholastic Achievement, though the difference was again not significant.

Based on the findings of the study, suggestions and recommendations have been given for monitoring and evaluating the preschool components of ICDS. Need for refresher training for AW workers has been emphasized. It has also been suggested that while explaining differences in performance of children exposed and not exposed to preschool, variables other than preschool exposure should be looked into.

Reference

Verma, A. & Agnihotri, C. (1981). **In favour of children.** Baroda : Good Companions.

III. CHILDREN WITH SPECIAL NEEDS

A. LEARNING DIFFICULTIES AND DISABILITIES: DIAGNOSES AND PROGRAMS

B. HOSPITALIZED CHILDREN AND THEIR CARETAKERS

C. DEVELOPMENTALLY HANDICAPPED CHILDREN: AN INTEGRATION PROGRAM

A. LEARNING DIFFICULTIES AND DISABILITIES: DIAGNOSES AND PROGRAMS

20. Saran, A. (1981). **Children with learning disabilities : A pen picture.**

The broad objectives of the study reported herein were to conduct individual case studies of twelve children with learning disabilities and, on the basis of these case studies, to draw a pen picture of children with learning disabilities.

In keeping with these broad objectives, the major components of the study were : (i) identification of children with learning disabilities on the basis of a battery of tests; (ii) collection of background information of these children; (iii) collection of comprehensive information of these children through observation of children and interviews of parents and teachers regarding the child in class, at home, during play (both at home and school), and during testing and learning situations. Besides these, the study involved, (iv) development of a set of learning activities and their administration (in a group or individually) to understand children's behavior during learning situations, and (v) preparation of descriptive profiles of children with learning disabilities in terms of their general behavior and behavior in learning situations.

Method

Sample

The sample consisted of 12 children with learning disabilities (2 girls and 10 boys from Stds. I to IV) in the age range of 6 to 12 years. The sample, drawn from Sanskar Vidhyavihar School, Baroda, was selected by the following procedure:

Step-I : The Teacher's Rating Scale (TRS) was given to all the class teachers of Stds. I to IV, to check on children who they thought had problems in school learning. Simultaneously, standardized group tests, namely Draw-a-Man Test (DAM) of Intelligence for Indian children, and An adapted version of Schonell Graded Word Reading Test (SGWRT) were administered to all the children from Std. I to Std IV. The test results revealed that 31 children performed poorly on the group tests. These children were also rated by teachers as having problems in the academic sphere. Academic records of these 31 children were scrutinized to know their academic performance in the exams.

Step-II : Based on the results, 12 children were selected for further screening. A battery of individual tests consisting of Matching Familiar Figures Test (MFFT), Children's Embedded Figures Test (CEFT), and Indian adaptation of Weschler's Intelligence Scale for Children (WISC), was administered to these children to obtain further information on their abilities and to identify their specific learning disabilities.

Step-III : After the battery of tests was administered, the test performances were analysed both qualitatively and quantitatively.

Tools

The tools used for sample selection included Teacher's Rating Scale, Draw-a-Man Test, Schonell's Graded Word Reading Test, Academic

Records, Matching Familiar Figures Test and Children's Embedded Figures Test.

The investigator constructed the following tools in order to collect data for the study:

1. **An Observation Schedule** was prepared to observe children's general behavior and behavior during learning situations in various settings viz., (i) in classroom; (ii) at home; (iii) during play -- at school and at home; and (iv) during work activities.

2. **A Semi-structured Interview Schedule for Teachers and Parents** was utilized to obtain the teacher's and parents' opinion regarding the child's general abilities and disabilities, difficulties the child faces, and his/her adjustment in school and at home.

3. **A Background Information Proforma** was administered to parents for obtaining information about the child's general background (i.e., name, age, sex, etc.), developmental history, illness and surgery, language development, social development, emotional adjustment and school performance.

4. **A Sociometric Method** was used to obtain data on the social interaction of the 12 sample children among their group members. It involved asking each child in a group to select which other child he would prefer to play with, be friends with, and study with.

Procedure

Observations spread over the day were carried out for each child at home for a period of 1 to 2 months. A minimum of 15-20 observations of 20-25 minutes duration were carried out for each child. At school, a minimum of 10 observations for 15-20 minutes were made for each child.

In order to observe the child's actual behavior in learning situations, a set of work activities was developed, based on the test profile of each child and available literature. Observations were then categorized into : (i) general behavior; and (ii) behavior during learning situations.

Analysis

Based on 60 observations, common characteristics of each child were derived. A child was assigned a particular trait or behavior if he/she exhibited it in at least 70 percent of the total observations across different settings (e.g., during play, in learning situations, etc.). Inter-rater reliability was established by having an independent rater interpret and analyze the observations. Inter-rater agreement ranged from 80 to 85 percent.

Data obtained through observations, interviews and background information proforma of each child were presented in a descriptive form (as a case study) in the following sections : (i) background information of the child; (ii) test performance of the child; (iii) the child at home and during play; (iv) the child during the learning situation; and (v) opinions of parents and teachers.

The general behavior and behavior in learning situations were delineated and on the basis of these observations, a pen-picture of the children was prepared.

Results and Discussion

The background information of the children revealed that learning disability is not restricted to any particular socio-economic status. Most of the children had a normal birth history, had reached their milestones at the appropriate ages and had no history of any serious health problem.

Children with Learning Disabilities : A Profile

The test profiles of the sample indicated : (i) an average or above average IQ score on DAM; (ii) higher scores on performance IQ than on verbal IQ of WISC; (iii) reversals, omissions, additions, poor letter formation and spacing on adapted version of SGWRT; (iv) impulsiveness on MFFT; and (v) field dependence on CEFT. All the children in the sample performed poorly in academic learning inspite of having an average or above average intelligence.

In terms of general behavior observed in various settings, most of the children with learning difficulties were found to lack in confidence and showed inability to follow instructions and retain information. They were also found to have a poor time sense, a short attention span and were found to be disorganized. None of the children, however, was a social isolate and all were found to have good general motor co-ordination and spatial orientation.

During learning situations, most of the children with learning disabilities showed difficulty in comprehending class discussions, were poor in comprehending word meanings, had a poor vocabulary, used incomplete sentences and showed an inability to co-ordinate ideas according to age and class. The children often interrupted the learning situations, never took initiative and were among those who rarely did their homework and never brought books according to their timetable.

Teacher's/Parents' Opinions

Analysis of the teacher's and parents' opinions regarding the child with learning difficulties revealed that neither of them were aware of the actual reasons for learning difficulties faced by the children and what should be done for them. The parents stated lack of concentration and over-indulgence in play on the part of the children to be the major reasons for their child's learning disability. They felt that teachers should assume more responsibility in dealing with such children.

The teachers too stated lack of concentration and disinterest in academic work on the part of the child to be the main causes for their poor performance. They stated that parents should take more interest and give individual attention to the child in order to overcome the child's learning disability as, according to them, they were too overburdened with work.

Implications

While working on activities conducted individually by the investigator and the teacher, the children of the sample showed a marked improvement in the learning pattern. This led to the conclusion that individual attention worked better with children who exhibited learning problems.

21. Trivedi, S. (1982). **Difficulties in reading and writing : A search for a viable remedial model.**

The present study, as part of a project on learning disabilities (started in 1978 by the Department of Human Development and Family Studies, M.S. University of Baroda), focused on children who have moderate difficulties in learning. The study aimed: (i) to identify children with difficulties in reading and writing from standard II of Alembic Vidyalaya, a Gujarati medium school of Baroda; (ii) to develop a reading and writing program for these children; (iii) to implement the developed program; and (iv) to evaluate the children's performance in terms of : (a) gains in children's performance, if any, in reading and writing, (b) gains in academic test scores, if any, and (c) feasibility of the program for classroom use.

For the purpose of the study, 'learning difficulties' was operationally defined as - "mild to moderate problems faced by children in learning to read and write, as revealed by the classroom teacher, academic records, Graded Word Test and Reading Analysis Test".

Method

The present study was conducted by employing the control group pretest-post-test experimental design.

Sample

The sample consisted of 30 children (age range 7-9 years) with moderate difficulties in learning, from standards II A and II B. These children were selected on the basis of their performance on various tests (see procedure). Standard II A (7 girls and 8 boys) formed the experimental group and standard II B (8 girls and 7 boys), the control group. Both groups belonged to the middle socio-economic group with family income ranging from Rs.500/- to Rs.1200/- per month.

Tools

The tests used for identification and assessment of children were:

1. **Teacher's Rating Scale (TRS).** This test covers areas of functioning and behavioral dimensions like attention span, ability to follow instructions, motivation, attention seeking behavior and distractibility. A brief subscale of "special reading and writing difficulties" covering areas of comprehension, reading, writing, understanding and word recognition, was also included.

2. **Phatak's Draw-a-Man Test of Intelligence** for Indian children (DMT) was used to measure IQ of children.

3. **The Graded Word Test (GWT)** was prepared on the basis of Schonell's Graded Word Test, to check spelling ability of the children.

4. **Academic Records** of examinations held in Standard IIA and IIB were scrutinized to check children's classroom performance.

5. **Reading Analysis Test (RAT)** was prepared by the investigator, on the basis of Durrell's test for analysis of reading and writing abilities. The test was prepared to check on the nature and type of errors in reading.

For each test measure, cut-off points were determined using average classroom performance as the criterion reference.

Procedure

Initially, TRS, DMT and GWT were administered and the academic records of ten children were scrutinized. On the basis of these measures, children who were identified as having moderate difficulties (n=30) were selected as sample for the study. Reading Analysis Test was administered to the selected sample in order to know the nature and type of errors in reading, based on the results of which a program of reading and writing was developed and implemented for the experimental group after a gap of one week.

Program Description

"The Remedial Reading and Writing Program" consisted of a set of activities/games planned to help children in learning various aspects of reading and writing. It included: (i) recognizing, identifying and naming simple and complex words; (ii) listening comprehension; (iii) following verbal and written instructions; (iv) improving quality of handwriting; (v) writing correctly the words used in written and oral communication; (vi) oral reading; and (vii) silent reading. In each of these areas activities/games were arranged hierarchically from simple to complex.

The program was implemented for one month and twelve days. One week after the completion of the program, the children were post-tested on the above mentioned tools and tests. Separate tests, similar, but not identical to the pretest were used for the Reading Analysis Test and Graded Word Test Performance.

Analysis

The data were analysed qualitatively and quantitatively.

Analysis of covariance was used to obtain the significance of difference between the pretest and post-test scores of children in the experimental and control groups, on the measures of RAT and GWT. The data were also analysed qualitatively along the following dimensions : (i) Graded word list--average number of words written by the class, number of correct words, number of omissions, substitutions and hearing errors; (ii) Reading analysis - number of words omitted, mispronounced, repeated and prompted for the child.

The feasibility of the program was determined on the basis of : (i) the responses of the teachers on the interview schedules and (ii) the actual time and expenditure incurred for the program.

Results and Discussion

Analyses of the data revealed that gain in both the test measures viz. RAT and GWT was highly significant ($p < 0.01$). Specific gains were observed in various skills of reading and writing (e.g., silent reading, sounds, etc.). An improvement in the academic records of the experimental group was also observed. It was thus concluded that the program helped children overcome moderate difficulties in reading and writing.

The implemented program was found to be feasible in terms of expenditure incurred, time spent and content covered.

22. Mohite, P. (1983). **A classroom instruction program for primary school children with learning difficulties.**

The study was undertaken as an attempt to develop a viable classroom instruction program of reading and writing for elementary school children of standards I and II who faced difficulties in learning to read and write.

The main objectives of the study were : (i) to develop an easy-to-adminster, quick screening device for identifying children who face learning difficulties in reading and writing; (ii) to identify children with : (a) learning difficulties, and (b) learning disabilities, of standards II and III of the Sayajigunj Mishra Shala No.5; (iii) to develop a graded classroom program for these children; (iv) to implement the program for children with learning difficulties; and (v) to evaluate the program in terms of (a) gains in children's performance, and (b) feasibility for classroom implementation.

In the context of the study, the term **learning difficulties** referred to minor or major difficulties in various aspects of reading and writing as revealed by the class teachers and formal test measures. **Learning disabilities** was defined as a condition in which : (a) the learning problem should not be a correlate of any primary handicapping conditions like mental retardation, sensory handicaps, emotional disturbance; (b) within these children, intra-individual differences (i.e. discrepancies in their own growth) in terms of abilities and disabilities should exist; (c) the deficits found in the child should be of a behavioral nature; and (d) the primary focus of identification should be psycho-educational.

Method

Sample and Design

The research design adopted for the study was a 2 x 2 x 2 factorial design, (Standards II and III; experimental and control groups; high and low levels of learning difficulties). A sample of 88 children, (equally representing standards II and III) facing difficulties in learning to read and write, was selected on the basis of scores obtained on Draw-a-Man Test of IQ, Graded Word Test (written) and Teacher's Rating Scale. This constituted Sample A.

On the basis of scores obtained on the Gujarati adaptation of Weschler's Intelligense Scale for Children (WISC), Children's Embedded Figures Test (CEFT), and Matching Familiar Figures Test (MFFT), one child with learning disabilities was identified from Sample A. This constituted Sample B.

Tools and Tests

A. **Tools/Tests used for selection of Sample A.**

1. **Draw-a-Man Test** of IQ for Indian Children (DAM) (Phatak, 1966) was administered to ascertain the normalcy of the IQ of children.

2. **Graded Word Test (GWT) - Written** was prepared by the investigator on similar lines as Schonell's Graded Word List with the main purpose of understanding the spelling skills of children.

3. **Teacher's Rating Scale (TRS)** was developed to fulfill the first objective of the study viz., "to develop an effective and easy-to-administer screening device for identifying children with learning difficulties".

B. **Tools/Tests used as pretest and post-test measures.**

4. **Pre-requisite Reading Test (PRT)** was prepared with the purpose of testing children's knowledge of Gujarati letters and 'barakhadi' (barakhadi refers to a series of twelve letters made by adding vowels to consonants e.g. Ka, Kā, Ki, Kī, Ku, Kū, Ke, Kai, Ko, Kau, Kaṅ, Kah).

5. **Reading Analysis Test (RAT)** was prepared on similar lines as Durrell's Reading Analysis with the purpose of assessing children's performance in various components of reading. Listening comprehension, word recognition and analysis, hearing sounds in words, oral reading and silent reading are its main components.

6. **Graded Word Test (GWT) - Oral** is the same as GWT-Written, the only difference being that GWT-Oral is a reading test.

7. **An Interview Schedule** was prepared to find out from the teachers their views about the various aspects of the program to determine the feasibility of its classroom usage.

C. **Tools/Tests used for identifying children with learning disabilities (Sample-B).**

8. **Gujarati Adaptation of Weschler's Intelligence Scale** for Children (WISC). Out of 12, four components of WISC, two verbal and two non-verbal, were administered as part of the battery.

9. **Children's Embedded Figures Test (CEFT)** developed by Witkin, Oltman, Raskin and Karp (1971), measuring the figure-ground perception of a child and reflecting extent of competence of perceptual disembedding. Local norms for the test were established.

10. **Matching Familiar Figures Test (MFFT)** was used to identify children who are reflective or impulsive in their cognitive style.

Procedure

Pre-testing. Prior to pre-testing, children's ratings on TRS were analyzed to determine levels of their difficulties. All the children fell in the category of 'Children with learning difficulties'. Within this category, the children were distributed into two sub-categories i.e., children with high level of learning difficulty and low level of learning difficulty.

Having identified the levels of their difficulties, three tests, namely, GWT-Oral, RAT and PRT were administered to the children.

Program implementation. One week after the completion of the pre-testing, a graded program of reading and writing was implemented with the children of standards II and III. The duration of the program was of three months.

The broad objective of the program was to enable the children to overcome their learning difficulties especially in reading and writing, simultaneously helping them to cover their prescribed syllabus content. A group strategy was adopted for the program. The content of the program included letters of Gujarati alphabet, barakhadi, simple and complex words of the prescribed Readers and, simple and complex lessons in the Readers. The program consisted of a set of activities/exercises planned to help children in mastering various aspects of reading and writing. In each area of learning, activities/exercises were arranged heirarchically from simple to complex.

Post-testing. One week after the completion of program implementation, the children were post-tested on the same test measures that were used for pre-testing.

Analysis

Analysis of Covariance (ANCOVA) was employed separately for each test measure, to find out the significance of differences between the groups (experimental and control), levels of difficulty (high and low), and standards (II and III).

Identification of Sample B

Results obtained were tabulated and scrutinized to identify children who might be suffering from 'learning disabilities' on the basis of the following criteria:

(a) minimum or no gains in at least two measures;

(b) at least four traits typical of learning disability on TRS (as rated by the class teacher);

(c) errors typical of a learning disabled child on GWT-written; and

(d) manifestation of a cluster of at least four characteristics typical of a learning disabled child.

Results and Discussion

Identification of Learning Difficulties

The TRS, developed for identification of children with learning difficulties, was found to be an easy-to-administer and an effective screening device. The content validity for the TRS was established, test-retest reliability coefficient was found to be .89 and coefficient of correlation (when correlated with GWT-written) to be .86.

Effectiveness of the Program for Children with Learning Difficulties

Prior to program implementation, the children of experimental and control groups were found to perform at a very low level on all test measures. ANCOVA revealed that in the post-test, the children in the experimental group (i.e. children for whom the program was implemented) improved significantly on all the test measures, as compared to the control group.

Qualitative analysis of children's performance showed that the children in the experimental group exhibited improvement in: (i) recognition and meaningful understanding of letters, barakhadi and simple words; (ii) letter formation; (iii) ability to read letters, barakhadi, words and simple sentences; and (iv) conscious efforts at reading and writing.

The program thus developed, executed and evaluated proved effective in terms of children's gains in reading and writing skills, and was found by the teachers to be feasible for classroom implementation.

Program for Children with Learning Disabilities

Based on the criteria determined for identification of children with learning disabilities, one child was identified. On the basis of the test profile of the child, a program for children with learning disabilities was formulated. This program focused on Visual perception and sequencing; Spatial ability; Listening comprehension; and Activities for foresightful planning.

23. Ramnathan, A., & Shastri, J. (1984). **The Teacher's Rating Scale : Screening for learning difficulties.**

Ashai, Y. (1986). **Establishing norms for Teacher's Rating Scale.**

The Teacher's Rating Scale (TRS), developed by Mohite (1983) was further developed by Ramanathan & Shastri, and Ashai.

Ramanathan & Shastri (1984)

The study was undertaken to develop the TRS further and standardize it, keeping in mind the need for a quick screening device, and to further its applicability and use in research.

The study aimed to standardize the TRS over socio-economic class, sex and grades (Stds, I, II, III and IV) by : (i) developing the test items in reading and writing; (ii) screening items through item analysis; and (iii) establishing discriminant validity, content validity, construct validity, and criterion-related validity.

Sample

Three hundred and sixty children (180 boys and 180 girls) were selected through the stratified random sampling technique from 12 Gujarati medium schools in Baroda. The boys and girls represented the three socio-economic levels (viz., high, middle and low) equally. A modified form of Kuppuswamy's (1982) socio-economic scale was used to identify the socio-economic class. The sample represented standards I, II, III and IV equally.

Development of Teacher's Rating Scale

1. Planning the Test

The TRS, initially constructed by Mohite (1983), had 18 items under five sub-categories. In order to build a large number of items covering the underlying processes of reading and writing, additional sources like review of literature in the area of elementary education, available research data, other tests and scales, and suggestions given by some teachers were used.

2. Writing the Test Items

Fifty items representing the basic components of reading and writing were formed. Each item had three levels indicating the behavior for that particular level: (i) Level A-below average (ii) Level B-average for age and standard; (iii) Level C-above average.

Analysing the Items

1. Content validity

For the purpose of establishing content validity, the prepared scales were given to 25 experts in the fields of Psychology, Education, Child Development, Social Work, and teachers at that time engaged in the teaching profession. Suggestions of 12 experts who returned the scales were incorporated. Two items were deleted as they were thought to be unobservable. The remaining 48 items were grouped under six sub-categories of : (i) Auditory comprehension; (ii) Visual perception; (iii) Spoken language; (iv) Motor co-ordination; (v) Personal-social behavior; and (vi) Memory. The items were translated into Gujarati and given to the teachers to rate the selected 360 students.

2. Item discrimination and validity

a. **Discriminative validity :** Discrimination index D was computed for each item by the D index for item analysis. After item analysis, seven items with moderate discriminative index (between 0.2 and 0.4) were deleted. Forty-one items with high discriminative index (above 0.4) were retained.

b. **Biserial correlation :** The results of biserial correlation supported the D index, that is, the seven items which were deleted scored lower on biserial correlation as compared to other items.

c. **Establishing internal consistency :** Item to sub-test correlations were computed through point biserial correlation. The 41 items which were retained indicated higher correlations with their sub-tests and hence high internal consistency.

d. **Item variance :** The seven deleted items indicated low variance (between 0.11 and 0.15) or low extent of individual differences.

The final version of the rating scale consisted of 41 items within the six sub-tests mentioned earlier.

Standardization of Teacher's Rating Scale

1. **Establishing Validity**

   a. **Construct Validity :** To establish construct validity, the scores on the final version of the TRS were correlated with scores on Graded Word Test (GWT) and scores on Reading Analysis Test (RAT). Substantial correlations were indicated (i.e., 0.63 with GWT and 0.67 with RAT).

   b. **Criterion-related validity :** The total scores of TRS were correlated with academic scores of the children in three subjects, Gujarati, Arithmetic, and Environmental Science. A moderate correlation of 0.51 was obtained.

2. **Test Reliability**

   The reliability of the rating scale was calculated on the basis of number of items, the mean and the standard deviation. The reliability thus obtained was 0.96 (aproximately). The standard error of measurement obtained was 2.11.

3. **Cut-off Scores**

   A child's performance on each of the three levels in every item was given a score as follows: Level A-0; Level B-1; Level C-2. The highest possible score obtainable is 82 and the lowest possible score is zero. The following categories of performance level were formed: (i) 0-27 below average (has difficulty); (ii) 28-67 average level; (iii) 68-82 above average (no difficulty).

Learning Difficulties with Reference to Grade And Gender

When the mean performance of each grade level and gender was calculated, there were no significant differences in the performance levels. It can be therefore said that the scale is equally effective and applicable in identifying difficulties in all the four grades and across gender.

The Teacher's Rating Scale (TRS)

Thus, through the process of standardization, the Teacher's Rating Scale was validated and the final version consists of six subtests: (i) Auditory comprehension; (ii) Visual perception; (iii) Spoken language; (iv) Motor co-ordination; (v) Personal-social behavior; and (vi) Memory. Each subtest contains items pertaining to the major aspect of reading and writing. All these items (N=41) have three levels. The items are behaviorally stated indicating the behavior at that particular level.

Ashai (1986)

This study was undertaken as the next step to standardization, i.e., establishing norms for the TRS. The objectives of the study were: (i) to establish norms for the TRS; and (ii) to identify children with learning difficulties.

Method

Sample

A sample of 720 children, 360 boys and 360 girls, was selected from Gujarati medium schools of Baroda through stratified random sampling. The sample was drawn equally from low, middle, and high socio-economic class, and from the four grades (viz., I, II, III, IV).

Procedure and Scoring

Prior to administration of the TRS, the principals and teachers of the selected schools were oriented to the purpose of the rating scale.

The raw scores obtained by the selected sample of 720 children were represented in percentile ranks. The data were computor analysed and percentile norms were established for: (i) total sample; (ii) each grade; (iii) boys and girls; and (iv) each socio-economic class.

The data were also analysed to identify children with learning difficulties in reading and writing.

Results and Discussion

In the present study, the 3 levels of performance (viz., A, B, C) were scored as 1,2,3, unlike the scoring procedure adopted in the study by Ramanathan and Shastri. The highest and lowest possible score obtainable on the scale was, thus, 123 and 41 respectively. The mean performance of the total sample was 87 and S.D. was 25. Adopting the normal distribution, the categories of performance level formulated were:

41-62 : Below average (i.e., has difficulty)

63-112 : Average performance

113-123 : Above average (i.e., has no difficulty)

Analyses of the data revealed an incidence of learning difficulties among 15 percent of the total sample of children. Sex differences were negligible. However, the higher incidence of learning difficulties were found among children from low socio-economic class and from the lower grades (i.e., grades I and II).

Scores obtained on each section of the TRS revealed significant trends. Both boys and girls faced difficulties in the area of spoken language. However, boys performed better in the area of motor coordination and personal-social behavior. There were no differences in the mean performance of children from the four grades in the six major areas assessed by the TRS.

24. Desai, P. (1985). **Home variables in learning difficulties of primary school children.**

The study examined whether home variables make a significant difference in the classroom learning and learning difficulties of primary school children. The objectives of the present study were: (i) to find out the differences in the home environment of children who face learning difficulties and (ii) to find out a relationship between specific home variables and learning difficulties.

The term, 'learning difficulties' was operationally defined in the context as referring to minor or major difficulties in various aspects of reading and writing as revealed by the class teachers.

Method

A causal-comparative descriptive research design was used for the present study.

Sample

The sample was drawn from Standard II of the Sayajigunj Mishra Shala No.7 of the Municipal Corporation Schools of Baroda City. The major focus of the sample selection procedure was to identify children experiencing learning difficulties. This was done on the basis of : (i) scores obtained on three test measures namely, Draw-a-Man Test, Graded Word Test and Teacher's Rating Scale; (ii) the children's previous standard's (i.e., Standard I) annual results; and (iii) observation at children's homes. The sample thus selected consisted of 30 children, 14 without learning difficulties (7 boys and 7 girls); and 16 children with learning difficulties.

Tools

For the purpose of sample selection, three tests were utilized. These included: (i) **Draw-a-Man Test** of IQ for Indian children (DAM); (ii) **Graded Word Test** (GWT-written) consisting of a set of 40 words of increasing complexity taken from the prescribed readers of each standard; and (iii) **Teacher's Rating Scale** (TRS) aiming to find out whether children have difficulties in learning to read and write. The scale, developed by Mohite (1983), required the teacher to rate the child in terms of the average class performance. The child's level of performance depended on the category within which he was placed.

The tools used for data collection were :

1. **Caldwell's Home Inventory** (Revised) : This inventory was utilized to obtain information on the child's home environment and interaction patterns. It consists of eight subscales measuring : (a) stimulation through toys, games, and reading materials; (b) language stimulation; (c) physical environment: safe, clean, conducive to development; (d) pride, affection and warmth; (e) modelling and encouragement of social maturity; (f) stimulation of academic behavior; (g) variety of stimulation; and (h) physical punishments. This scale was adapted to the Indian setting by Boman Patell (1983). On the basis of the results obtained in the pilot study, the investigator added two items to the inventory.

2. **Interview Schedule for mothers :** This schedule, prepared by Boman Patell (1983), was used to elicit information regarding mother's

opinion about the importance of schooling, knowledge of school related activities, and help and guidance required by the children.

Procedure

Observations were made in a naturalistic setting. While the content of the inventory mainly served as a guideline, informality during the interview was stressed (so as to reduce threat and increase the probability of realistic responses). Each home was visited five times (during the identified blocks of time) and the average time for each visit was decided as 20 minutes. Only when a particular item was observed in the home for at least three times (out of the five visits), the family received a credit for providing the type of input specified in the item. If the item was observed twice or less, the family received no credit for it. After the completion of five observations, the mothers were interviewed informally.

Analysis

The small sample test provided by the 't' distribution was used to find out possible differences existing in the overall mean scores on the Home Inventory and in the mean scores of children with and without learning difficulties on each of the eight subscales of the Home Inventory.

The degree of relationship between the home environment and academic performance was obtained through Pearson's co-efficient of correlation. Correlations of the Home Inventory scores were calculated with scores on TRS, GWT and those obtained by children on a test held in their school.

Responses obtained on the interview schedule were scrutinized in terms of differences in the kinds of responses of the mothers of children with and without learning difficulties.

Results and Discussion

Analysis of the data revealed that the average Home Inventory score of children without learning difficulties was significantly higher than that of children with learning difficulties (p ∠.01). It was observed that there was a significant difference in the stimulation patterns in the homes of children with and without learning difficulties on five dimensions of the Home Inventory. These dimensions were language stimulation; stimulation through toys, games and reading materials; variety of stimulation; pride, affection and warmth (p ∠.01); and stimulation of academic behavior (p∠.02).

Moderate positive to high positive correlations were obtained between the overall Home scores and various academic measures (i.e. GWT, TRS, and school test scores). These results revealed that there was a high correlation between the home environment and the possibility of a child experiencing learning difficulties in school.

A clear pattern of differences in the responses of mothers of children with and without learning difficulties could not be ascertained. All mothers seemed concerned about the need for sending their children to school and seemed to view education as a ladder for social mobility. The major difference, however, was that more mothers of children without learning difficulties were aware of the subjects taught in school and the way they were taught as compared to the mothers of children with learning difficulties.

The data also lent itself to discussion of certain issues like the concept of adequate stimulation, nature and amount of interaction, socio-economic status and academic achievement, which although not forming a major focus of the study, have relevant implications for further program planning.

25. Roy, M. (1986). **Developing a home inventory to identify homes of children with learning difficulties.**

With the broad objective of developing and standardizing a home observation inventory to identify factors in the home environment related to learning difficulties, this study aimed: (i) to standardize a home observation inventory over sex and socio-economic status; (ii) to establish the discriminative value of the items; (iii) to establish the concurrent validity of the inventory.

The sample consisted of 120 children from grades I to IV, equal number of boys and girls from three socio-economic groups : low, middle, and high.

Procedure

The study was conducted in several phases:

Phase I : Development of Items

This was done drawing from Caldwell's HOME, review of the literature, suggestions made by Desai (1985) and observations made during the pilot study. The pilot study was done on a small sample (n=3), and each home was visited six different times in a day to check the feasibility and relevance of observation.

Phase II : Data Collection

An initial visit was made to each home to seek permission and to establish rapport. Three subsequent visits were made for observation, which was carried out if the caretaker and child were both present and interacting (and not watching T.V., or sleeping). For those homes where only one observation was possible, the score obtained was taken as the final score, and in cases where two or more than two observations were possible, the best score was considered final.

Phase III : Standardization

Content validity was established through the process of item development and from feedback given by experts in the relevant areas of specialization. Suggestions were evaluated and incorporated if relevant. **Item analysis** was done by applying the statistical tests of discriminative (D) index and item variance. **Reliability** was established by computing inter-observer reliability, Kuder-Richardson reliability and item-to-total correlation. **Concurrent validity** was established by correlating the children's scores on the inventory with scores obtained on the Graded Word Test (GWT), a Gujarati spelling test constructed by Mohite (1983).

Results and Discussion

The Home Inventory

Initially consisting of 38 items, the tool was narrowed down to 24 items within the broad categories of :

a. Language stimulation

b. Physical environment

c. Encouragement of social maturity

d. Variety of stimulation

e. Maternal attitude and disciplining

Each item can be scored as 0 or 1, with the total score being obtained by adding up the scores obtained on each item. Cut-off scores representing levels of stimulation have been given.

Item variance of a majority of these items ranged from moderate to high. Inter-observer reliability was established : Kuder-Richardson reliability coefficient was .75 (significant at .01 level), and item-to-total score correlation was found to be significant for all the items of the inventory. Concurrent validity was .54 (significant at .01 level).

Some Conclusions

Examination of the mean scores of children on the Home inventory revealed a significant difference between the three SES levels (low, middle, and high), the lowest mean score was in the lower SES and highest in the higher SES. From the scores on the inventory it can be concluded that girls were given more stimulation in their homes than boys. However, this difference was significant only in the lower SES. This difference can be explained by the differential patterns of socialization for boys and girls in the lower SES, during the primary school years, wherein the mother does interact more with the female child.

B. HOSPITALIZED CHILDREN AND THEIR CARETAKERS

26. Madan, S. (1982). **Enhancing pediatric care : A focus on child life.**

Bora, S. (1982). **Initiating a child life program in Shree Sayajirao General Hospital : A focus on parents.**

The present studies were part of a Child Life project of the Department of Human Development and Family Studies, at M.S. University. Madan (1982) focused on the child's needs and experiences in the hospital, and Bora (1982) studied the needs and experiences of parents of these child patients. A combined report of these two studies is presented herein.

The studies aimed to plan an orientation phase for sick children and their parents, as part of the Child Life program in the pediatric setting (including the Out-patient Department and Ward) of SSG Hospital.

The broad components of studies were : (i) conducting a case study of the hospital with specific reference to the OPD (out-patient department) setting, and the Ward setting; (ii) surveying the needs of sick children and their parents during OPD visits and during the initial period of hospitalization; and (iii) finding out the opinion of the medical team regarding the needs and problems of the hospitalized children and their parents, the medical team's roles and responsibilities, and the role of the child development worker.

Method

Sample

A. The primary sample consisted of a cross section of patients and their families attending the OPD on an average day at (i) the intake center; (ii) registration counter; (iii) pediatric clinic; and (iv) dispensary. The sample was selected by a time sampling method of 15 minutes duration, adding up to four hours (i.e., an average day at the OPD). A cross section of patients and their families attending the pediatric clinic at OPD on an average day were selected by event sampling method of half an hour duration to make up an average day. The medical teams in the overall administration also formed a part of the sample.

B. A sub-sample consisting of patients and their parents (n=18) their were drawn from the two main units of the pediatric ward by stratified random sampling technique, for interviews and detailed observations.

Tools

The tools for the present study were prepared on the basis of available literature and the investigator's experiential information. The suitability of the tools was established by administering these on three representative samples in the pilot study.

The following tools (guidelines) were prepared:

1. Guidelines to conduct a case study of the S.S.G Hospital (Shree Sayajirao General Hospital), pediatric clinic of the OPD and the pediatric ward.
2. Guidelines : (i) to observe children and their parents during medical examination; and (ii) to interview parents/caretakers to understand the needs of parents and children in the hospital.
3. Guidelines to interview the medical team in the pediatric clinic of the OPD and the pediatric ward.
4. Guidelines to give a description of a day of children and their parents in the pediatric ward.

Procedure

Data were collected in the OPD and Ward settings independently.

1. At the general OPD, needs of the patients and their families were

surveyed by 15 minutes time sampling criteria, after every 45 minutes, over a period of two days. Incidental observations and interviews of the medical staff were also conducted.

2. At the OPD pediatric clinic, needs of children and their parents were surveyed by event sampling the medical examination of children. This was supplemented by interviews of the medical staff and incidental observations.
3. In the pediatric ward setting, interviews of a representative sub-sample of patients and their parents, incidental observations, and interviews of the medical team were conducted.

Results and Discussion

The S.S.G. Hospital

The S.S.G. Hospital is one of the oldest hospitals in Baroda, aiming to help maintain the health standard and provide medical and psychiatric treatment to patients, especially of the disadvantaged sections of the society.

A major portion of the finance for the hospital is provided by the Government of Gujarat. The staff consists of: (i) members of the faculty of medicine; (ii) a medical social officer and a psychiatric social worker; and (iii) a hierarchy of personnel from matrons to the student nurses.

Registration is done directly at OPD and a nominal charge is taken if the income of the patient is above Rs.500/-. Patients are informed one day prior to their discharge and asked to follow up the treatment and get a medicine quota of seven days on discharge from the casualty department.

The OPD and Pediatric Ward Setting.

The OPD functions for six days a week, from 8 a.m. to 12 noon, with a holiday on Sunday. It has 25 clinics with 2 to 8 individuals in each clinic. Depending on the type of illness, the patients take case-papers from the intake unit to the registration counter and then undergo a medical check-up. The medicine is dispensed from the dispensary free of charge.

In the pediatric ward, cases from casualty and OPD are referred to the staff nurse. Meals to the parents are provided by trusts. One parent/caretaker is expected to constantly be with the child to give him medicine and food in time. It is the parents' duty to look after the general cleanliness of the ward.

Children aged 1 to 12 years with illnesses like tetanus and gastro-enteritis can be admitted to the isolation ward. No special activities are given to the children. The child patients in this ward are provided with 24 hours emergency medical services.

Needs of the Parents

Data revealed that the parents and children found hospital visits unpleasant, especially when they were villagers with little or no knowledge about the layout and functioning of the hospital, and the child's illness. Their inability to communicate with strangers and the medical team often was a source of frustration and distress to them.

Some special needs (of the parents) identified were:

a. **The need to feel comfortable** and for better communication between the staff and the parents.

b. **The need to feel in control.** The parents needed help and facilities to get oriented to the hospital set-up and enable them to take care of themselves and their children.

c. **The need to be purposefully active.** The parents needed options for activity, engagement and interaction.

d. **Financial needs.** The parents showed considerable interest in income generating activities, as compensation for the daily wages that they had to forgo when their children were in hospital.

The Needs of Children in Hospitals

The information collected from the children, parents and medical staff revealed that the child patient was often frightened by the strangeness of his surroundings, people in the hospital, and the medical examination. This, combined with the pain which the child might be experiencing often led to fears, frustrations and anxiety for the child. Some special needs of the hospitalized child were:

a. **Need to get familiar with the new environment.** When children first come to the hospital, the type of interaction they have with the hospital personnel set their reactions to the health care setting and hospital personnel. It was found that due to the parents' ignorance about the medical procedures, and the child's illness, they were unable to give explanations to the child and set him/her at ease.

b. **Need for play and education.** It was observed that no special activities were planned for the hospitalized children. Chronically ill patients were often confused by their illness and accompanying pain, feeling of lowered self-esteem and an overpowering sense of helplessness. It was suggested that therapeutic activities could help these children to express their feelings openly and thus be able to adjust to their illness and hospitalization. Further, the children also needed experiences which were related to their daily routine, enabling them to gain a feeling of normalcy.

Some Suggestions

On the basis of the suggestions of the medical staff and the observations, it was concluded that there was a need for a child development worker in the hospital, who could understand the developmental needs of children and their behavior in relation to the effect of illness and hospitalization.

On the basis of the findings, a framework was developed for a child life program in the SSG Hospitad setting. The framework encompasses the skills required by a child development worker along with his/her duties and responsibilities.

C. DEVELOPMENTALLY HANDICAPPED CHILDREN : AN INTEGRATION PROGRAM

27. Dhillon, R. (1982). **Planning, implementing and evaluating an integration program for the developmentally handicapped children.**

The study was undertaken to integrate developeentally handicapped children in the regular nursery school. The specific objectives were: (i) to plan, implement and evaluate an integration program for the developmentally handicapped children of the Play Center for Children with Special Needs; and (ii) to evaluate the change in behavior as an outcome of the integrated experiences provided to these children.

The term 'integration' referred to the placement of a developmentally handicapped child into the regular nursery school program.

Method

Sample

The sample consisted of six developmentally handicapped children, in the age range of 3-10 years, registered at the Play Center for Children with Special Needs, Department of Human Development and Family Studies, Baroda, in the year 1981.

Tools

The following tools were constructed by the investigator for the purpose of the study:

1) **Behavior checklist :** This was used to quantify the running observations taken for each subject and consisted of 15 categories of socio-emotional behavior.

2) **Case observation guideline for teachers :** The guideline was used to evaluate behavioral changes in the developmentally handicapped children after their integration into the regular preschool program, and the change in attitudes of normal school children towards the developmentally handicapped children. The checklist consisted of six categories.

3) **Sociometric technique :** The technique aimed at assessing the social status of the subjects in their respective groups and consisted of six questions, first three pertaining to acceptance, and the last three to rejection.

4) **Interview schedule for parents of the developmentally handicapped children :** This tool was constructed to assess the acceptance or rejection of the handicapped children in the nursery school setting and parental reaction to the children and the integration program.

5) **Interview schedule for nursery school teachers :** This tool was utilized to assess the opinion of teachers regarding the integration program and their attitudes towards the idea of integration of the handicapped with the normal children.

Procedure

The procedure of the present study involved program planning and implementation.

Planning the integration program : A need based integration program for each subject was planned with the help of case observation records maintained by the play centre for handicapped children. The integrated experiences were selected based upon the ability of each subject. The criteria used to determine the ability were : (i) age of the subject; (ii) independence in physical movements; (iii) severity of handicap; (iv) ability to grasp and understand instructions; (v) interest and concentration in activities; and (vi) the age group of the nursery school children and the program offered to them.

The various integration experiences planned for a period of 15 weeks were as follows :

Phase I (5 weeks) : Music and story telling sessions and outdoor play.

Phase II (4 weeks) : Addition of indoor activities, field trip and creative activities to the activities of the previous phase.

Phase III (3 weeks) : Addition of project talk, informal group talk and lunch to activities of the previous phase.

Phase IV (3 weeks) : All activities.

Implementation of planned program : The program thus devised was implemented in two phases :

1. **Preparation phase :** This phase consisted of : (i) preparation of both the groups of children i.e. the developmentally handicapped and the normal children, which was necessary to increase understanding regarding the purpose of integration; (ii) prepartion of the nursery school teacher regarding the background information of each subject; (iii) preparation of play center workers; and (iv) preparation of parents of the developmentally handicapped children. The mothers were to be assigned one child each (i.e. a child other than their own) to provide help during the integration program.

2. **Execution phase :** This phase consisted of integration of the subjects for a period of 15 weeks. The subjects received integrated experiences during indoor and outdoor free play, field trips, lunch, and music. These experiences were introduced and increased gradually during the course of 15 weeks.

   Running observations of each case were taken for 30 minutes each day, for three days a week, in all situations. Sociometric test was administered to the nursery school children in the sixth and fifteenth weeks of the program. Parents and teachers were interviewed to collect detailed information about each case.

Analysis

Quantitative analysis consisting of transferring the running observations to various socio-emotional behavioral categories of the Behavior Checklist in the form of frequencies was undertaken. The social status of the subject was determined based upon the responses received from nursery school children regarding acceptance and rejection of handicapped subjects during pre-and post-test. Case observations by teachers supplied the periodical progress report of the subject. Opinions of parents and teachers obtained through interviews also formed a part of the case evaluations.

Results and Discussion

A careful scrutiny of the social-emotional behaviors observed in each developmentally handicapped child revealed that all the subjects showed varying degrees of progress towards developing independence in their activities : going to regular class by themselves, reaching Balwadi by nursery school bus, and having lunch with nursery school children. New behavior responses like imitation, sharing, verbal and non-verbal communications were acquired by all the subjects. In five out of six subjects speech had gained clarity and there was a marked improvement in vocabulary. The subjects who had speech and hearing impairment showed a greater tendency to communicate by gestures and actions.

The social status of each subject in his/her respective class had improved by the end of the program but the degree of acceptance varied for each subject. The subjects also indicated an overall improvement in their relationship with teachers and children.

The parents also revealed that their child had exhibited definite changes in their behavior at home. The improvement was in terms of developing relationships with adults and siblings, increased self confidence, interest and inclination to play and participate in activities, increased verbal and non-verbal communications and use of new words. They further revealed that their children showed increased tolerance and fewer instances of difficult behavior. The parents themselves had gained in terms of self-esteem and in their awareness regarding helping the child at home.

References

D'Silva, L., Verma, A., & Mistry, V. (1984). Training to work with the disadvantaged rural, tribal and urban slum child. **International Journal of Early Childhood,** 16 (1), 24-29.

Mistry, V., & Fozdar, A. (1982). Educational intervention with disadvantaged children with reference to home based programs. **Baroda Journal of Nutrition,** 1, 408-415.

Mistry, V. & Dhawan, G. (1981) . **Learning activities for young children.** Baroda : M.S. University of Baroda Press.

Mohite, P. (1985). **Classroom intructions program for primary school children with learning difficulties.** Notes, comments ... Paris : UNESCO, Unit for Co-operation with UNICEF and WFP. N.S.162.

Mohite, P. (1986). **Learning difficulties : Diagnosis and program.** Baroda : Gaekwad Printrance.

Mohite, P., & Joshi, S. (1986). A competency based maths program, **Indian Educational Review,** XI (5).

IV. POPULATION EDUCATION AND FAMILY WELFARE

A. POPULATION AND FAMILY WELFARE EDUCATION

B. FUNCTIONING OF FAMILY WELFARE CENTRES

C. TRAINING NEEDS OF CHILD AND FAMILY WELFARE WORKERS

A. POPULATION AND FAMILY WELFARE EDUCATION

28. Dave, C. (1982). **Population education program for secondary school students.**

The study aimed to plan a need oriented population education program for secondary school students based on their knowledge and understanding of population related concepts.

The second major objective of the present study was to execute the population education program to : (a) create an awareness and understanding regarding all the major areas of population education; (b) develop understanding regarding the specific concepts in which the students lack knowledge and understanding within major areas of population education; (c) equip the students with the necessary knowledge and understanding to enable them to make rational and responsible decisions regarding their reproductive behavior in future; and (d) create an awareness in the students regarding the importance of population education to perform their roles as responsible adults for the improvement of the family, community, and national life.

Thirdly, the study aimed to evaluate the education program to : (a) find out the gain in knowledge and changes in the students' understanding of various areas of the program and of various population issues, and (b) find out the extent to which the program is found suitable and acceptable to boys and girls.

Method

The present study was completed in two phases:

Phase I : Development of a Population Education Program.

In order to develop a meaningful and need oriented program on population education for the students of secondary classes, the following steps were undertaken:

1. A complete survey of the theoretical and research literature including the draft syllabus prepared by NCERT (1971) was undertaken to formulate a hierarchically ordered curriculum with suitable concepts.

2. A study was conducted to find out the existing knowledge and understanding of the target group on different population issues at the micro and macro levels in order to collect the benchmark data to build a need oriented or knowledge based curriculum. This survey was conducted by Karnick and Dave (1978) on 550 students of IX and X classes studying in the co-educational and non-co-educational secondary schools of Udaipur District, Rajasthan. The results of this study pointed out some population concepts of which the students lacked knowledge and understanding. (For detailed information refer to Mistry, V. (1986) Compendium of Researches : Vol.II).

Phase II : Execution and Evaluation of the Program

Sample

In order to conduct and evaluate a population education program developed by the investigator, 100 students (50 boys and 50 girls) of standards IX and X studying in two non-co-educational schools of Udaipur, Rajasthan, were selected. The age of these subjects varied between 13 to 16 years.

Tools

The following tools were utilized for evaluation of the population education program.

1. **Knowledge inventory :** The knowledge inventory developed by Karnick and Dave (1978) was used by the investigator for the present study to find out the knowledge content of students in four areas of population education under study.

2. **Story situations :** In order to find out the level of understanding of students, two parallel sets of five story situations along with probe questions in the areas: (i) determinants and consequences of population growth; (ii) human reproduction; and (iii) family planning were formulated. Inter-rater reliability was established to score the responses of the students under three levels of understanding i.e. High, Moderate and Low understanding. These were administered to the students before and after the experimental program.

3. **Daily lesson evaluation proforma :** A pretested lesson evaluation proforma was used to find out the suitability and acceptibility of the lessons taught to the students, in terms of content, teaching method and language, and teaching aids used.

4. An **overall program evaluation guideline :** A pretested overall program evaluation guideline prepared by the investigator was used to find out the reactions of the students to various aspects of the program.

Procedure

The program was divided into eight lessons. These lessons were then pilot-tested on a small group of boys and girls. Based on the results of the pilot study, the lessons were modified and finally nine lessons were prepared with their individual objectives, detailed content, audio-visual aids required, assignments for the students, and evaluation measures. These lessons were then taught by the investigator with the help of audio-visual aids like films, film-strips, charts, and black-board drawings/illustrations to the group of boys and girls separately, during their regular school hours. The lessons were supervised by a senior trained supervisor. Discussions were held at the end of each class hour to clarify the doubts/misunderstandings of the students.

In order to evaluate the program, one group pre-test-post-test experimental design was used. The Knowledge Inventory and the Story Situations were administered to the students before and after the experimental teaching. The daily lesson evaluation sheets were provided to the students after each lesson and the overall program evaluation guideline was administered to the subjects after the completion of the total program. Besides these, the feedback from the supervisor, the heads of the two schools and the observations of the investigator were also fed into the evaluation of the total program.

Analysis

The pre-test and post-test data were subjected to t-test to find out the (i) gain in knowledge; and (ii) change in the level of understanding of the students regarding the vital population related areas under study. The 't' values were derived for the entire sample, and for boys and girls separately.

The qualitative analysis of the total program by the subjects, the supervisor, the heads of the two schools and the investigator aimed at examining the suitability and acceptibility of the program in terms of the content, teaching method, audio-visual aids, time spent, preference for the sex of the teacher teaching such a course, and above all, the need of population education for the secondary school students.

Results and Discussion

Population Education Program : Gain in Knowledge and Understanding.

An analysis of the pre-test and post-test data (i.e., scores on the Knowledge Inventory and Story Situations) revealed that the students gained significantly, ($p \angle .01$) in knowledge and understanding of population related areas and issues as a result of the experimental teaching.

Sex-wise comparison in terms of percentage gain in knowledge revealed that the girls had made consistently greater gains in all the four areas under study (viz., demography, determinants and consequences of population growth, human reproduction, and family planning). Both boys and girls however, gained most knowledge in the area of family planning, whereas boys had highest percentage gain in knowledge in the area of human reproduction. The results also revealed that the girls had gained more in terms of correct knowledge, whereas boys had attained more understanding of the population concepts than girls.

Inspite of the fact that the students, specifically girls, had correct knowledge regarding how conception takes place and what are the determinants and consequences of large family size, they found it difficult to accept that family size can be controlled by the couple. The major reasons were their deep-rooted religious beliefs and traditions, where 'pooja' (prayers) and 'manata' (vows) are considered to play an important role in obtaining a son who ensures security for old age.

Evaluation of the Population Education Program

The overall evaluation of the population education program for secondary school students by the students, the supervisor, and the investigator indicated that in general, the content, teaching method, audio-visual aids and the evaluation procedure adopted by the investigator were suitable and acceptable for teaching the secondary school students.

All the evaluators, i.e., the students, the supervisor, the investigator, and the two headmasters felt that population education should become an integral part of the regualr school curriculum for secondary school students on a priority basis as these students are at the threshold of marriage and family. However, they differed on certain aspects:

1. The students, the investigator and the two headmasters felt that human reproduction and family planning must be included in greater detail in the curriculum on population education. However, the supervisor felt that some of the concepts under these two topics could be deleted.

2. The students, the supervisor and the investigator felt that the teacher who teaches population education must be well acquainted with the subject matter and be frank, confident, and scientific in his/her approach. Although boys expressed no specific preference regarding sex of the teacher, girls preferred to be taught only by a female teacher.

3. The students, the investigators and the two headmasters stated that the content for educating the boys and girls must remain the same, whereas the supervisor felt that though the basic content must remain the same, the emphasis may vary during the teaching in terms of the specific contribution of the students' reproductive behavior on the quality of life.

On the whole, however, all the evaluators emphasized the importance of the population education program for individuals of all age groups.

29. Kapadia, S. (1983). **Youth involvement in family life education programs.**

The objectives of the present study were: (i) to test the feasibility of using the youth approach for imparting family life education to out-of-school youth (adolescent boys/girls); and (ii) to formulate broad guidelines for offering a family life education program through the youth approach.

Method

Sample

For the purpose of the study, two types of samples were chosen:

Sample-A consisted of 18 volunteers (9 boys and 9 girls), drawn from the National Service Scheme (NSS), a voluntary national youth organisation or with a unit in Maharaja Sayajirao University, Baroda. The age-range of the selected volunteers was beteeen 16-19 years. All the volunteers possessed sufficient working knowledge of Hindi/Gujarati.

Of the 18 volunteers, three boys and one girl were selected for imparting the program to out-of-school youth. Selection was made on the basis of participation in discussions, leadership qualities, general level of performance, and the quality of activities prepared during a training workshop.

Sample-B was drawn from Jalaramnagar community, located at Karelibaug, Baroda city. The total sample consisted of 8 out-of-school youth (4 boys and 4 girls), between the age-range of 12-18 years.

Tools

1. **Questionnaire :** A questionnaire consisting of multiple choice questions on various population issues developed by Karnick (1978) was modified to find out the knowledge content of the vo,unteers (Sample - A). The final tool, was translated into Hindi and consisted of three broad components: (i) background information; (ii) multiple choice questions on demography, determinants and consequences of population growth, human reproduction, and family planning; and (iii) open-ended questions on population issues, decision making, economic consideration, nutrition, and health and sanitation.

2. **Interview schedule :** An interview schedule developed by Dhar (1981) was administered by the volunteers (Sample A) to the out-of-school youth (Sample B) to find out their knowledge content regarding various family life issues. The tool was translated into Hindi, and consisted of the following three components: (i) background information; (ii) open-ended questions on population issues, decision making, economic consideration, nutrition, and health and sanitation; and (iii) multiple choice questions on human reproduction.

3. **Observation and interview schedules :** The observation records included items related to : (i) the training workshop conducted for the volunteers; (ii) content of the program offered by the selected volunteers and evaluation of the volunteers during the program; and (iii) concepts, discussions, and evaluation of activities of the program received by the out-of-school youth, and evaluation of these youth.

Three different interview schedules were administered:

i) to the volunteers (Sample A) after completion of training; and (ii) after completion of the program; and (iii) to the out-of school youth (Sample B) after completion of the program.

Procedure

Phase-I : Training Workshop for Sample A (volunteers)

A workshop was conducted two weeks after the evaluation of Sample A. Lessons developed by Dhar (1981) on various population and family life issues were included in the workshop, and based on the lessons, the volunteers were instructed to devise different activities. The duration of the workshop was 10 days.

The content of the workshop consisted of the following eight lessons by Dhar (1981) : (i) Introducing family life education; (ii) Economic consideration; (iii) Responsible parenthood; (iv) Nutrition during pregnancy; (v) Infant nutrition; (vi) Health and sanitation; (vii) Knowledge of human reproduction; and (viii) Decision making and communication.

The approach was essentially informal in nature, using various techniques such as group discussions, games, role play, and every day life examples for the volunteers to understand the basic concepts. At the end of the discussion after each lesson, suitable activities related to that particular lesson were prepared by the volunteers. The workshop schedule was flexible. The nature of the workshop allowed all the volunteers to engage in their respective group tasks, at the same time helping each other, thus facilitating the investigator to move around and cater to their problems, if any.

Phase-II : Program for Sample B (out-of-school youth).

The broad objective of the program was to measure the feasibility of the youth approach. The program was geared to creating an awareness of family planning, population, and related issues; stimulating the development of favorable attitudes towards planned parenthood; and improving the quality of living in a community through knowledge and understanding of the ways in which population issues influence the prospects for changes in their community.

The content of the program consisted of the same lessons that were imparted to the volunteers during the training workshop, along with related activities prepared by the volunteers. The program was implemented three weeks after the volunteers had evaluated Sample B in terms of their knowledge content. The duration of the program was of nine days. The approach was essentially informal in nature and the program schedule was flexible. The sessions for the boys and girls were held separately.

A week after the completion of the program, the volunteers interviewed the youth to find out its impact. A section of the interview schedule pertaining to evaluation of the volunteers was completed by the investigator.

Analysis

From tools (1) and (2), the background information was obtained by qualitative description. Two experts and the investigator rated the open-ended questions independently. Mean ratings arrived at by the pooled judgement of the experts represented the final rank order of the response. The multiple choice responses were tabulated under four pre-decided categories: (i) Correct; (ii) Incorrect; (iii) Do not know, and (iv) Any other. The third tool consisted of observations and interview schedules. Frequencies of response under each category were calculated.

Results

A preliminary survey of the level of knowledge content of the volunteers on various population and family life issues revealed that it ranged from 'fair' to 'above average' understanding. The highest number of correct responses were in the areas of human reproduction and family planning. Sex differences were found in knowledge content with the boys possessing more knowledge in most areas than girls. Evaluation of the training workshop revealed that the content and duration of the program was satisfactory. The teaching methods utilized by the investigator were rated positively.

Knowledge content of the out-of-school youth on various life issues ranged from 'average' to 'low' understanding, the lowest being in the areas of population issues, decision making and human reproduction. The boys were found to possess more knowledge in most of the population related areas, as compared to girls. Evaluation of the program revealed that the concepts taught were clear and the length of discussions was 'Just right'. The activities utilized to teach concepts and related activities were rated positively by the out-of-school youth.

30. Roongruag, J. (1983). **Knowledge content of secondary school boys and girls on population issues in Nakhon Pathom.**

With the broad objective of finding out the knowledge content of secondary school boys and girls regarding the population situation in Thailand and its social and economic consequences at the micro levels, the study aimed : (i) to study and compare the knowledge content of adolescent boys and girls, from standards IX and X regarding the population situation in Nakhon Pathom province of Thailand; (ii) to study and compare the knowledge content among boys and girls from different educational programs (i.e., science, arts and other) regarding population situation in Nakhon Pathom province of Thailand; and (iii) to compare and contrast the results of the present study with that of Karnick, 1978 [refer Mistry, V. (1986) Compendium of researches; Vol.II] which was conducted in Udaipur district, Rajasthan, India.

Method

Sample

The sample for the present study consisted of 250 students (125 boys and 125 girls) studying in standards IX and X of secondary schools of Nakhon Pathom Province (Thailand), selected from the educational streams of science, arts and other programs. The sample was selected from three government schools and three private schools (both co-educational and non-co-educational).

Tools

A multiple choice questionnaire developed by Karnick (1978) was used for the present study with due modifications suggested by experts and through pilot-testing of the tool. The tool consisted of two parts: (a) questions pertaining to the background information of the students; and (b) multiple choice questions regarding demography, determinants and consequences of population growth, human reproduction and family planning. The tool was translated from Hindi into English and then to Thai language before administration.

Procedure

The selected schools were contacted through reference letters from the president of Nakhon Pathom Teacher's College, and later, permission and appointments were obtained for administering the tool. The data were collected in the presence of the investigator during free classes. Standardized instructions for answering the questionnaire were given beforehand.

Analysis

The responses to the knowledge inventory by the total sample of 250 students were tabulated under three pre-decided categories: (i) correct response; (ii) incorrect response/do not know response; and (iii) any other response. Percentages were calculated for the total sample, as well as for boys and girls separately, for each of the four areas. Comparisons were made to find out differences between: (i) standard IX and X students; (ii) boys and girls; (iii) standard X students from science, arts and other educational streams; and (iv) knowledge content of boys and girls from Karnick's (1978) study and that of the present study.

Results and Discussion

Knowledge content of the standards IX and X Thai students was seen to be high in all four population issues in the following order: human reproduction, family planning, demography, and determinants and consequences of population growth (72% of the responses were found to be correct).

Sex differences in correct percentage of responses between boys and girls of standard IX were observed. The boys had more knowledge content in all the population issues except in the area of family planning where girls had a higher percentage of correct responses. Sex differences in knowledge content were slight in the boys and girls of standard X.

No clear differences were seen in the knowledge content of Thai students in standard X from the different streams of specialization (i.e. science, arts and other programs). The comparison of knowledge content of students in standard IX and X showed that the students of standard X had a slighty higher knowledge content.

Analysis of number of correct responses revealed that the students needed to acquire more information in the area of demography, wherein they lacked knowledge of some basic facts about their national, province and district level population. Similarly in the area of determinants and consequences of population growth, students had insufficient knowledge about the causes of population growth and adverse effect of high population growth, at the micro and macro levels. Moreover, they had limited knowledge pertaining to methods of controlling population growth. In the area of human reproduction, students had insufficient knowledge about human physiology and reproduction and the effect of multiparity. Lastly, in the area of family planning, students indicated limited knowledge with regard to definition of family planning.

Comparing the results of the present study with that of Karnick's (1978) study, a difference in the knowledge content of boys and girls in India and Thailand was revealed. The knowledge content of students in Thailand was higher than their Indian counterparts. A discrepancy was also observed in knowledge content (in terms of rank order) on population issues. The Thailand sample had highest knowledge in the area of human reproduction, followed by family planning, demography, and the determinants and consequences of population growth, while Indian students had highest knowledge content in the area of family planning followed by human reproduction, determinants and consequences of population growth, and demography.

B. FUNCTIONING OF FAMILY WELFARE CENTRES

31. Shantha, K. (1983). **The welfare component in the existing family welfare centres in Baroda city and district.**

A program for family welfare was devised in 1977 as a result of the shift from family planning (FP) to family welfare, the very basis of which was maternal and child health. The present study aimed at (i) investigating into the organisation and functioning of family welfare centres (FWCs) in Baroda city and district; and (ii) finding out whether the functionaries of the family welfare centres had perceived this major shift in the family planning movement.

Method

Sample

Two types of samples were included in this study. **Sample A** consisted of a representative sample of 18 FWCs, randomly selected from the urban FWCs under Baroda Municipal Corporation and rural FWCs in Baroda district, under the district health administration. **Sample B** consisted of 75 functionaries offering welfare services and employed at the FWCs in urban and rural areas. The functionaries consisted of medical officers (MO), lady health visitors (LHV), extension educators (Ext. Edu.), family planning field workers (FPFW), auxillary nurse midwives (ANM), multipurpose health supervisors (MPHS) and multipurpose health workers (MPHW).

Tools and Procedure

The tools used for the study were:

1. **Background information sheet** which dealt with the organisational pattern of the FWC.
2. **Interview schedule** I, a semi-structured schedule, which dealt with the functioning of the FWCs, was formulated to elicit information regarding services offered in the areas of medical care, family planning, maternal and child health, school health, control of communicable diseases, implementation of national health programs, environmental sanitation, vital statistics, educational and motivational activities and participation of community members in the family welfare program.
3. **Interview schedule** II was devised to yield information on the perception of the functionaries regarding their role and responsibilities in the FWCs. The schedule consisted of two parts: (i) for the functionaries working since the shift in focus of the FP movement in 1976, and (ii) for the functionaries working before the shift in his emphasis of the FP movement had taken place. The interview schedule thus prepared was pretested on the functionaries of four urban FWCs, on the basis of which modifications were made in the schedule. This modified schedule was sent to experts in the field of gynaecology, obstetrics, family planning, demography and pediatrics for suggestions on improving the tool. After making relevant changes, a pilot study was conducted. The results of the pilot study were used to modify the tool and subsequently, the final draft of the tool was prepared.

Data collection in the urban and rural areas was done simultaneously as per convenience of the investigator. The functionaries were interviewed after prior appointments. Incidental observations regarding the manner in which time was spent by the clients while waiting for their turn, general behavior of the functionaries, cleanliness of the clinic, sterilization technique, health education given using audio-visual aids available in the clinic were noted down.

Analysis

Data were analysed descriptively with the help of frequency distribution of (i) the services offered by functionaries from each category; and (ii) responsibilities that the functionaries carried out at the urban and rural centres. The roles perceived by the functionaries in the broader context of the present family welfare program were found out by comparing the responses of the functionaries with those specified in the changed policy given in the report of National Institute of Health and Family Welfare (NIHFW, 1978).

The views, perceptions of the functionaries regarding the change in focus of the FP movement, problems faced by them, and the felt need for additional services in the family welfare program were analysed by calculating the frequency of each item of the interview schedule.

Results and Discussion

Analyses of the organizational pattern of the Family Welfare Centres (FWCs) at the urban and rural levels revealed that the link between the grassroot level centres and the head office was not being maintained properly.

It was observed that services like control of communicable diseases, environmental sanitation, and implementation of National Health Program were not being offered through the urban FWCs. Vital statistics maintained at the urban FWCs were mainly in terms of the performance of family planning and maternal and child health (MCH) services, and in the rural FWCs in terms of the registration of deaths and births, and health and sanitation.

Urban and rural FWCs offered family planning services and they tried to educate and motivate people to adopt family planning. Follow-up visits of the family planning adopters were carried out only incidentally. The workers did not try to identify complications or consequent problems, for example, probability of breast cancer, etc. Family planning was perceived as synonymous with birth control by urban and rural level functionaries. Educational and motivational activities and activities related to family planning were present more in the urban FWCs than in rural FWCs. More functionaries at the urban FWCs than rural FWCs offered MCH services. Though the FWCs had immunization and vitamin A supplement programs for children, diagnosis and treatment of the severely undernourished children was neglected. However, school health services were given by almost all functionaries.

All functionaries of the urban and rural FWCs were of the opinion that community participation, especially by the leaders, is an important factor for family welfare programs to attain success. An analysis of the perception of the functionaries regarding their own roles in the

FWCs revealed that they did not perceive their expected roles as planners, organisers, educators, motivators, etc., in light of the shift in focus in family welfare programs.

When questioned about their roles as viewed by the functionaries in the broader context of family welfare programs, about 78 percent of the urban FWC functionaries and 69 percent of the rural FWC functionaries said that the current approach was towards family and its welfare. Forty-two percent of the urban FWC functionaries and 52 percent of the rural FWC functionaries said that the emphasis was on the 'mother' and 'child'. One hundred percent of the rural and urban functionaries were of the view that it was their responsibility to educate parents about the different FP methods, and importance of small family norm and then allow them to select the methods they preferred. Twenty seven out of 42 urban FWC functionaries and 32 out of 42 rural FWC functionaries felt that the family welfare program was helping in family planning. Ten out of 27 urban FWC functionaries and 12 out of 32 rural FWC functionaries felt that monetary incentives had helped FP.

Analysis of the views/opinions of the rural and urban FWC functionaries, however, revealed that they had not perceived the philosophy of the broader family welfare program in the broad perspective in which it had been conceived. The problems faced by functionaries since the change in focus in FP included increased target group, and work overload. The functionaries felt that targets for FP should be given to community leaders and grassroot level workers at the urban and rural level.

32. Shah, V. (1985). **Perception of young mothers regarding family welfare program and small family norms.**

As a complement of the earlier study by K. Shantha (1983), the present investigation attempted to determine the client's perception of the functioning of family welfare programs and its functionaries and their involvement in and attitude towards the small family norm.

The present study was thus undertaken with the following objectives : (i) to find out the views of young mothers with regard to functioning of the family welfare centres (FWCs and its functionaries), and (ii) to determine the young mothers' own perceptions regarding family planning (FP) as a means of promoting total welfare of the family.

Method

Sample

The sample for the study consisted of 80 young mothers i.e., 40 visiting (attender group) and 40 not visiting the FWCs (non-attender group). The criteria for the selection of the sample were : (i) the mothers should be selected from urban as well as rural areas; (ii) they should have either one or two children or be about to have their first child; and (iii) the duration of their married life should not exceed five years.

Tools

Data were obtained through the following tools constructed by the investigator:

1. **Background information sheet :** This included items on age, education, number of children, use of contraceptives etc.

2. **Interview schedule - I :** This semi-structured schedule was developed to study the perception of respondents regarding the functioning of the centre. It included multiple choice questions on (i) the reasons for attending/not attending the FWC, (ii) their awareness of and satisfaction with the types of services offered by the centres, and (iii) the various roles performed by the functionaries of the centres.

3. **Interview schedule - II :** This was a semi-structured schedule developed to study perceptions of respondents regarding family planning (FP). It included questions assessing (i) mother's perceptions about small family norm, use of contraceptives for child spacing, effect of mother's health and nutrition on child's health and survival; and (ii) mother's views regarding the relationship between these factors and the well-being of the family.

Procedure

The sample for the study was identified through home visits. The respondents were interviewed in isolation from the rest of the family. Both the interview schedules were administered in the presence of the investigator.

Data for urban and rural samples were collected simultaneously as per the convenience of the investigator. If a response made by the young mothers was already listed as a probe in the multiple choice questions of the interview schedule, a tick (✓) mark was made before the relevant response, otherwise, the response was written down verbatim.

Analysis

The data were analysed with the help of descriptive statistics. Frequencies were computed for each of the responses on the interview schedule. These were then converted into percentages, and rural/urban and attender/non-attender comparisons were made. Observations and impressions obtained by the investigator were also incorporated.

A qualitative summary comparison between the results obtained from K. Shantha's (1983) study and the present study was made in order to obtain a complete picture of the functioning of Family Welfare Centres.

Results and Discussion

Client's Perceptions of the FWCs

Analysis of perceptions regarding functioning of FWCs indicated that a favorable perception of the centre existed among the attenders of the centre as compared to the non-attenders. The main reason for not availing the services of the FWCs amongst the non-attender group of respondents was the long waiting time. Other important reasons mentioned were inadequate and ineffective medicines and fear of forced sterilization.

The attender group, on the other hand, showed faith in the efficiency of the staff as the main reason for visiting the centre. Other important reasons mentioned were nearness of the centre to home and free distribution of medicines. However, the quality of functioning of centres was not favourably reflected by these respondents for reasons such as lack of privacy during consultations, hygiene of centre, satisfactory instructions and advice by staff, etc.

Analysis of the awareness and satisfaction of respondents about the different services offered by the FWCs indicated that although the respondents perceived FWCs to have a FP orientation, a clear emergence of awareness of family welfare orientation, in terms of the welfare services (especially the ante-natal, natal, and post-natal services) offered through the centre, was revealed.

On the other hand, low awareness was indicated for family welfare services offered by the centres in areas of FP, prevention of communicable diseases, school health, and environmental sanitation. A high degree of satisfaction was indicated by the attender group for the ante-natal, natal and post-natal services offered by the FWCs. The findings revealed that the respondents' perceptions of the roles performed by the functionaries at FWCs were limited to that of 'educator', 'motivators', 'supervisors' and 'providers'. Awareness of roles such as 'planner', 'director', 'evaluator' and 'counsellor' were not indicated by any of the respondents. Analysis of perceptions regarding FP indicated that a majority of the respondents perceived FP to mean having two or three children or sterilization.

A favourable perception was shown for FP and small family norm though the respondents did not practise the same. A gradual awareness regarding the relationship of FP to the welfare of the family was seen to emerge in the respondents. The respondents who did not perceive any advantage of family planning were against contraceptives, and mentioned the adverse effect of sterilization as one of the disadvantages of FP. The present study also revealed that a majority of the respondents favoured a FP program run by the Government.

The Functionaries' Views

Comparison between the results of K. Shanta's study and that of the present study revealed some similarities in the findings with regard to the kind of services offered by FWCs. K. Shanta's study revealed that there was a definite lacunae in the perceptions of the functionaries regarding their own roles which may have been reflected in the responsibilities that the functionaries carried out in the FWCs. This perhaps was the reason for the perception of limited roles of functionaries.

C. TRAINING NEEDS OF CHILD AND FAMILY WELFARE WORKERS

33. Kathuria, R. (1982). **Audio-visual aids for tribal parent education program with special reference to health, nutrition and family planning.**

As part of a project undertaken by the Department of Human Development and Family Studies, the present investigation aimed: (i) to identify the audio-visual aids available in the different welfare agencies; (ii) to trace the gaps in terms of existing and needed audio-visual aids on the basis of field testing and evaluation; (iii) to edit and modify the existing audio-visual aids; and (iv) to develop new resource materials and audio-visual aids which would help functionaries and field level workers in the implementation of tribal parent education programs.

Program Development

1. Lesson Plans

At the onset of the project, work plans in the areas of health, nutrition, and family planning were prepared. The work plans were revised after consulting three experts in the respective fields and presented in a tabular form under the following heads : (i) Broad objectives; (ii) Specific objectives; (iii) Components of knowledge content; (iv) Important messages; and (v) Audio-visual aids.

2. Effective Use of Audio-visual Aids (A.V.Aids)

Schematic representation of communication tools, with their general description, advantages, disadvantages, and recommended audience size were presented. This was followed by suggestions for their effective use so as to make the total process of audio-visual communication more effective.

3. Evaluation and Preparation of Audio-Visual Aids

Before developing a new package of aids, those available in different agencies were evaluated in order to identify and collect aids which could be used with or without modifications and include these in the package. Evaluation was carried out in the following manner:

a. The criteria formulated to evaluate the A.V. aids were given to five experts from the fields of Education, Child Development, Education & Extension, and Public Health. Suggestions were incorporated and the criteria were modified.

b. The revised criteria were pilot tested again to check their validity.

c. Before the actual evaluation of existing A.V. aids was conducted, inter-rater reliability was established by having experts from the Department of Education & Extension rate each category of A.V. aids (posters, flash cards, flannel cut-outs and flip charts) independently.

d. In total, 16 agencies (local and non-local) were located and A.V. aids available with them were evaluated. Among the A.V. aids available, it was found that a majority of the aids were unsuitable for use with an illiterate population as they lacked visuals; or when visuals were present, they did not convey the key message(s). Certain aids were also found to be culturally irrelevant (e.g. poster with the message--store food in refrigerator) and were therefore rejected. The aids which met the criteria were listed as appropriate aids. The maximum number of aids were found to be in the area of health, followed by nutrition and then family planning.

Prepared audio-visual aids.

The following aids were prepared to go with the unit-wise lesson plans in the areas of health, nutrition and family planning.

a. In the area of family planning, a set of seven view cards on the importance and need of family planning were prepared along with a set of 20 slides on methods of family planning. Both these aids were accompanied by audio-recordings of the scripts.

b. In the area of nutrition, a puppet skit to clarify misconceptions regarding diet during pregnancy was prepared with special reference to clarification of prevalent local beliefs.

   Keeping in mind the local practice of not feeding the infant for the first three days after birth (due to the belief that colostrum is heavy, dirty, impure and undigestible for the infant), a set of 20 slides emphasizing the importance of breast-feeding right from birth, hygienic practices related to breast-feeding and necessity of giving water to the infant from the start was prepared.

4. **Field-testing of Aids**

   The aids were field tested with the following objectives in mind: (i) to check the effectiveness of existing and prepared A.V. aids; (ii) to check the feasibility of modifications of audio-visual materials; (iii) to note gaps in terms of cultural discrepancies in illustration, level of information presented, and the feasibility of usage of different aids in the field which would aid in the preparation of the package; and (iv) to check the relevance of the prototype lessons and evaluation criteria at field level.

The field testing of the aids was undertaken in four steps:

Step-I : Interviews were conducted prior to the field testing sessions. Subjects were asked simple questions based on the prototype lessons so as to get an idea of their knowledge content on the forthcoming session. A key of correct answers was prepared to check the elicited answers.

Step-II : Prototype lessons were developed before the investigator went to the field. These represented the 'verbal content' of the illustrated material, embodied the basic theme of the session, and were not taught as an independent body of knowledge but with the help of audio-visual aids. A standard format was followed: (i) specification of relevant content; (ii) statement of a small number of clear objectives; (iii) simple post test evaluation. Criteria to evaluate prototype lessons were also formulated.

Step-III : A set of post test evaluation criteria was formulated pertaining to each of the lesson plans developed. This covered all aspects in the lesson. This exercise was followed to get an immediate feedback on the lessons and the audio-visual materials used.

Step-IV : An observation check-list was formulated for a cross-check of the evaluation results and for an overall evaluation of the plans. It had to be filled in immediately after the session.

Results of field testing : Three aspects were noted : the impact of the A.V. aids, the comprehensibility of the message and the credibility of the message. All A.V. aids scored high on the first aspect but did not score high on comprehensibility. The major limitation was the inadequacy of visual material, which did not illustrate the key message. Moreover, due to cultural discrepancies, the target group had difficulties in identifying with the characters. Credibility of aids too was found to be low. Local beliefs acted as barriers in the acceptance of messages. On the basis of these results, modifications for specific A.V. aids were suggested.

Suggestions for planning, implementing and evaluating field programs have been worked out after reviewing literature, holding discussions with experts and based on the investigator's field experience.

34. Majithia, V. (1982). **Problems perceived by functionaries in the implementation of tribal welfare services.**

The present study was part of a project undertaken by the Department of Human Development and Family Studies on the "Utilization of services and programs by government and voluntary agencies specifically catering to child welfare". The study aimed : (i) to gain information on (a) perception of the needs and priorities of the tribals by the functionaries; (b) functionaries' perception regarding the type of problems faced by the tribals; and (c) problems faced by the functionaries in relation to implementing the programs, including the constraints of their own working conditions; and (ii) to work out suggestions for better implementation and evaluation of these programs.

Method

Sample

The taluka selected for the present study was Limkheda, considered to be the most backward and under-privileged taluka in the Panchamahal district. In all, there were three Primary Health Centres (PHC), nine sub-centres, nine Family Welfare Centres (FWC) and three dispensaries in Limkheda. Supplementary Nutrition Program (SNP) was provided in 105 villages of the taluka. The services offered by the agencies in this taluka included Out Patients Department (both Allopathic and Ayurvedic), Family Planning, Maternal health, Nutrition, Sanitation and Environmental hygiene, Epidemic control and Eye treatment.

The functionaries at the centre came from varied backgrounds (i.e. from Gujarati and non-Gujarati communities) and had on-the-job training as per the job requirement. Their duties included those of administration, supervision, and field level functioning depending on their specific posts. Twenty one functionaries were selected, mainly on the basis of their availability. These functionaries included eight medical officers, two multipurpose health workers, two block extension educators, three health visitors, four auxillary nurse mid-wives, one compounder and one special nutrition program worker from three Primary Health Centres, two Subcentres, two dispensaries and two Family Welfare Centres (FWCs), and one Supplementary Nutrition Program (SNP).

Tools and Procedure

A semi-structured interview schedule was prepared by the investigator after gleaning through relevant items from the studies conducted in related areas in the Department and questionnaires used in studies conducted by Tribal Research and Training Institute, Vidyapith, Ahmedabad.

The schedule was administered to seven experts for evaluation and was pilot tested before being finalized. The functionaries were interviewed individually. Incidental observations at the time of interview and informal discussions with the beneficiaries were also recorded.

Results and Discussion

Background data revealed that the number of beneficiaries availing of the services of the agencies was very low, especially in the interior villages. These beneficiaries had a background of poor living conditions, poor health, varied misconceptions and believed in 'Bhagat' (the local medicine man) and spirits. The functionaries perceived basic amenities to be the priority for the tribals.

The common diseases found in this area were upper respiratory infections, gastro-enteritis, fever, pains, venereal diseases and skin infections.

Major Problems Faced by the Functionaries

The major problems faced by the functionaries were stated as lack of awareness regarding the program among the beneficiaries and lack of follow-up on their part, unsuitable timings, lack of facilities at the centre and its inability to provide the basic amenities.

The functionaries attributed the problems to the misconceptions and orthodox beliefs held by the beneficiaries. They suggested that the primary ways of increasing the number of beneficiaries would be to increase awareness of the program and the literacy level, thereby changing the negative attitude of the beneficiaries and generating a more positive acceptance of services.

The facilities available to most of the functionaries included free medical supplies and travelling allowances. However, dissatisfaction among the functionaries was found in the areas of income, water supply, housing, equipment, teaching material, loan, leave, transfer and heavy work load.

Suggestions for Better Planning, Implementation and Evaluation

Suggestions for better planning, implementation and evaluation were given by the functionaries and the investigator. Suggestions given for solving problems faced by the functionaries involved : (a) provision of residential quarters, electricity and water supply; (b) adequate quota of medicines, injections, petrol/diesel for transportation and other services.

For program planning, it was suggested that (a) short term integrated scheme should be planned which would be more suitable and meaningful;

(b) field staff and local people should be involved in planning; and (c) health camps should be located at a more centralized location.

Various suggestions for program implementation were given. These involved (a) increase in staff and increment in their allowances, more powers to medical officers especially in taking minor decisions, and specification of job responsibilities; (b) orientation to the functionaries about tribal culture and their needs and training for better skills in communication; (c) talks to the tribal beneficiaries on nutrition, especially means of preserving nutrients in food with emphasis on locally available cheap food stuffs; (d) more importance to Ayurvedic treatment given by traditional medical practitioners, as it stands very close to the herbal treatment followed by the tribals; (d) need for highlighting supervision with guidance as a major component, and explanation of the utility and benefits of follow-up to the functionaries for better evaluation; and (e) need for emphasis on home based programs, which would be more effective because of the individualized approach.

35. Gogoi, M. (1983). **Developing an integrated program for rural women and children and preparing guidelines for village level workers.**

With the broad objective of developing an integrated program for rural women and children and preparing guidelines for village level workers, the study aimed; (i) to assess the needs of the specific target groups (women, adolescent girls and children) of the selected village; (ii) to prepare an integrated program for women and children based on the assessed needs; and (iii) to prepare guidelines for village level workers with special reference to the village placement program of the Department of Human Development and Family Studies.

Procedure

The village of Sangma (Padra Taluka, Vadodara Dist., Gujarat) was selected to assess the needs of the rural community under the assumption that all Indian villages have some common basic needs.

Information required to assess the needs of the concerned rural community was obtained from the following sources: (i) on-the-spot, semi-structured interviews of the community leaders and members of the community including the Sarpanch of the village Panchayat, the President of Sangma Mahila Mandal, teachers, a medical practitioner and five mid-wives practising at Sangma; (ii) observation checklist for women and adolescent girls of the community, and children of the village school and balwadi; (iii) departmental reports of the village placement program; (iv) published and unpublished reports of work in rural communities in general, to check if information on needs of rural communities at large have been identified; (iv) incidental observations and impressions of the investigator during visits to the community; and (vi) reports of medical check-up of women and children conducted by qualified physicians.

Results and Discussion

Based on the information gathered, the following needs were identified:

1. **Needs of the community at large :** These were identified as: (i) potable water; (ii) environmental sanitation which includes an effici-

ent drainage system, community latrines, garbage pits, stables, and tree plantation for shade, fuel and food (i.e., fruits and vegetables); (iii) a good balwadi; (iv) library; and (v) a more homogenous community life (i.e., elimination of caste barriers).

2. **Needs of families :** These included : (i) proper ventilation; (ii) soak-pits for disposal of waste water; (iii) private latrines; (iv) balanced diet; (v) need to avoid wasteful expenditure; and (vi) greater savings and new sources of income.

3. **Needs of women, adolescent girls and children :** These were identified as : (i) promoting healthy and hygienic practices; and (ii) promoting nutritional awareness and knowledge of appropriate nutritional diets for the different groups. Specific to the adolescent girls was the need for knowledge of body functions and preparation for marriage.

Integrated Educational Program for Rural Women and Children

On the basis of the assessed needs, an integrated program for rural women and children was developed. This program encompassed the following areas : (i) health; (ii) nutrition; (iii) environmental sanitation; (iv) education; (v) conservation of resources; (vi) income generation; and (vii) recreation. The objectives, content, method and media were specified for each of the areas of the integrated program and presented in a tabular form.

Guidelines for village level workers

Guidelines for village level workers were prepared on the basis of experiences of the rural work teams of the Department of Human Development and Family Studies. Guidelines were prepared for: (i) assessment of resources of the action team (or individual workers); (ii) selection of the community to be served and criteria for selection; (iii) identifying and contacting community leaders; (iv) collection of general basic information about the community to be served; (v) selection of the areas of action (i.e., specific needs to be attended to); (vi) drawing a planned program of action; (vii) implementing a program of action; and (viii) evaluation of the implemented program of action.

A list of readily available sources of information has also been presented.

36. Nagpal, M. (1984). **Developing a training program for rural volunteers in the area of preschool education.**

The objectives of the present study were to develop a program to train rural volunteers for disseminating information in the areas of preschool education (with component areas of physical and motor development, socio-emotional development and concept-formation and language development) to mothers of preschool children. A part of the study also involved implementation of some of the components of the developed program at Sangma village and evaluation of the program for its feasibility of implementation.

Method

Sample

For the training program, the total number of trainees was fifteen. Of these, 6 volunteers were identified on the basis of (i) their regular attendence in various programs organized in the village by the Department of Human Development and Family Studies; (ii) their active interest in the programs; and (iii) their intention to work on their own and their resourcefulness.

The other 9 trainees were new volunteers selected on the basis of the following criteria; (i) age 14 years and above; (ii) resident of the village; (iii) ability to read, write and follow instructions in the local language (i.e. Gujarati); (iv) readiness to spare time for obtaining the training regularly and to impart the information to mothers; and (v) absence of any physical handicap or health problem which could interfere with the training.

The age group of the 15 trainees was 15-23 years. Seven trainees were married, four of them with children. The education of the trainees varied from 4th standard to S.S.C. (i.e. 11th Std.).

Procedure

The content of the training program was based primarily on the experience and insight gained from ongoing work at the Department of Human Development and Family Studies in the areas of Education in Early Years and of School Readiness with particular reference to underprivileged commmunities. Besides these, the reports of the department village placement program contributed substantially, especially with regard to the approaches adopted to communicate with the rural communities.

The major components of the training program were:

1. Introduction
   a. Importance of Balwadi
   b. Characteristics of preschool children
   c. Role of parents
2. Physical Development
   a. Habit formation and hygiene practices for better health
   b. Motor Development
      - large muscle development and suggested activities
      - finer muscle development and suggested activities
3. Socio-emotional Development
   a. Social aspects : sharing, co-operation, patience, and behavior towards adults; mother's role in developing these attitudes in children.

b. Emotional aspects : how the mothers may handle emotions of joy, fear, anger and jealousy.

4. Concept Formation and Language Development

a. Concept formation : Size, shape, weight, number, color, texture and time, suggested experiences for each of them.

b. Language Development : Undertaking what others say, building a vocabulary combining words into sentences and pronunciation; role of mother in developing language; and suggested experiences.

c. Developing Problem Solving Skills : role of mother in developing reasoning, questioning and decision making skills in children; and suggested experiences.

The program included lessons developed on the given content and strategies of training such as observation, discussion, role play and dramatization.

Eight students undergoing the post graduate program in preschool education from the Department were oriented to the objectives, content and procedures to be followed while implementing the program. Aids for implementing the program were developed and components 2 and 3 of the program (i.e. physical development and socio-emotional development) were implemented and evaluated. The first component was given as necessary for obtaining introductory background information. The program was of six days, duration for one-and-a-half hours daily.

Tool

An open-ended interview schedule was used for obtaining information regarding the knowledge content of the trainees in components 1, 2 and 3 of the training program. The same schedule was utilised for the post-test to analyse the knowledge gained through the training program.

Results and Discussion

Results indicated that all the volunteers showed gain in their total scores in the post-test over the pretest. Gain in scores of volunteers in the post-test over the pretest for each item was also observed. Pretest scores of the volunteers were closely related to age and experience of the trainees while the post-test scores were strongly influenced by the number of days of attendance in the program. It was also observed that on the whole, volunteers who had participated in the department's earlier program scored more on the post-test than the new volunteers. Gain in scores of volunteers in the post-test was higher among trainees who had a comparatively lower pretest score.

Incidential observations at the end of the program indicated an increase in the trainees' self-confidence and initiative in putting forward their views. Thus, looking at the program from the point of view of adequacy and appropriateness of the content in terms of gain in knowledge, effectiveness of the aids and methods used to implement the program and qualitative changes brought about in the training, it may be concluded that the program, on the whole, is feasible in the setting for which it had been planned.

37. Bagley, S. (1985). **Audio-visual aids for training health functionaries of Panchmahals in family life education.**

The present study aimed at developing and field testing a set of audio-visual aids to train health functionaries for effective implementation of family life education for the tribal youth. In consonance with this aim, the specific objectives involved: (i) conducting a baseline survey to find out the knowledge content of functionaries on issues related to family life and audio-visual aids; (ii) planning a training program based on the gaps found in their knowledge content in the above mentioned areas; (iii) preparing a set of audio-visual aids for trainers to train health functionaries in issues related to family life, and to facilitate planning and assessment of the routine work of the functionaries; and (iv) suggesting modifications, if necessary, after field testing the audio-visual aids.

Procedure

The entire project was carried out in four phases:

Phase-I : This phase was a preliminary one undertaken to gather information regarding the level of knowledge content of functionaries on various issues of family life education. The sample for this phase consisted of 24 functionaries from various Primary Health Centers (PHC) of Panchmahals. It was found that the functionaries not only lacked information about the issues related to family life but 'family life education' itself was an ambiguous term for them. The term "audio-visual aids" was known to them, but its meaning was restricted to use of films only.

Phase-II : The second phase of the project was carried out in the form of a six day long workshop, in order to provide the health functionaries with information on various aspects of family life education. The sample consisted of 17 functionaries from three PHCs of Limkheda Taluka, Panchmahals. Since audio-visual aids were thought to be an effective medium for conducting programs in family life education, an experience of selection and handling of such aids was also provided to the functionaries.

Phase-III : After the second phase of the project, the investigator found that the objectives were not being met satisfactorily as the functionaries had problems in the selection and use of audio-visual aids. An intermediary workshop was therefore planned, based on the results obtained in phase-II. Four functionaries out of the 17 who had attended workshop I, were present for workshop II. Workshop II provided experiences for the selection and use of visuals related to family life, preparation of lesson plans and techniques/aids, and evaluation of different types of audio-visual aids.

Phase-IV : Evaluation of phase III indicated that functionaries lacked enthusiasm, motivation and proper orientation in conducting programs in family life education. Hence workshop III was planned and conducted for trainers to train the health functionaries in the use of audio-visual aids for effective learning. The sample for this phase consisted of trainers, that is the Block Extension Educators, Health Visitors and Medical Officers, as they were the persons associated with educating the health functionaries. A need was felt to equip the trainers with a set of resource materials which would help them to effectively undertake the training. This led to the development of audio-visual aids for trainers to supplement the training program which aimed to educate health functionaries. The resource materials prepared can also be used by the training institutions for conducting training programs in family life education.

Results

As an outcome of the project, five audio-visual aids were prepared by the investigator. These aids can help trainers or supervisors in training health functionaries in family life education.

1. **Selection and use of visual aids**
   - a. A photo album prepared from samples of existing appropriate and inappropriate aids in the Department of Human Development and Family Studies, by Kathuria (1981).
   - b. A set of slides with script on 'Use of visual aids', includes samples of existing common aids that are easily available like puppets, posters, charts, flash cards, etc. The set of slides is accompanied by a recording in Gujarati.
2. **Aids on issues related to family life education**
   - c. A seasonal calender which would help to serve as a guide in program planning. It contains season-wise distribution of commonly occurring diseases and illnesses with suggested foods and recipes to overcome these diseases and illnesses.
   - d. A set of slides with script on 'Efficient and inefficient health worker', includes various aspects like removal of misconceptions (e.g., more children, more working hands), importance of education for both sons and daughters, small family-happy family and the importance of practice before preaching.
3. **Aid on self evaluation**
   - e. For self evaluation a checklist based on the job responsibilities of health functionaries (male and female) consists of questions tapping the following areas : Supervision and guidance; Cleanliness and environmental sanitation; Nutrition; Family planning; Maternal and child health; and Immunization.

References

Dave, P., & Kathuria, P. (1982). **Guidelines for tribal functionaries for conducting health, nutrition and family planning programs.** Baroda: Authors.

Dave, P., & Majithia, V. (1985). Knowledge content of health functionaries at Panchmahals on health nutrition and family planning. **Journal of Family Welfare.** 31 (4).

Pathak, Y., & Gogoi, M. (1985). Community guidance service: A program for workers. **Indian Journal of Community Guidance Service**, 2 (1), 57-66.

Pathak, Y., Gogoi, M. (1985). An integrated development program for rural women and children. **Indian Journal of Community Guidance Service,** 2 (3), 17-35.

V. STATUS OF WOMEN

38. Gupta, R. (1982). **Towards an understanding of the status of women in a rural community.**

The study aimed at understanding the status of Scheduled Caste (SC) and Scheduled Tribe (ST) women in a rural community setting. The major components included: (i) description of the community setting, i.e., the historical background, demographic profile, physical environment, socio-cultural milieu and economic set-up; (ii) understanding the status of women in the community, i.e., women as decision makers in the family and village, their household and non-household roles, relative value of sons and daughters, attitudes and practices pertaining to fertility control, nature of family relations and self-perception of women; and (iii) perception and utilisation of the available services in view of the felt and observed needs of the community, particularly women.

Method

Sample

In the present study, selection of a village as representative of the rural community was done according to the following criteria : (i) medium sized village, with a population of about 500-1000, and a high percentage of SC/ST population; (ii) availability of basic services of health, education, nutrition etc., either in the village or in close proximity to it; and (iii) presence of an approach road connecting the village to distant urban centres. The village selected was Rustampura which consisted of a heterogenous population of varied castes and classes.

Five sample sets were utilized to obtain information. These included: (i) thirty SC and ST women between the age group of 15-45 years who were selected through stratified sampling for collecting information on women's perception of their status and roles; (ii) ten SC/ST women who were selected from the above sample, through stratified sampling for observing their daily life schedule; (iii) elderly men and women from SC/ST community, randomly selected for obtaining information on the community beliefs, customs and practices; (iv) four local leaders i.e. a school peon, quarry owner, Patel's son, and a SC shop owner (identified by the functionaries and people) to obtain information on their perception of the community set-up, needs and problems; and (v) sixteen functionaries associated with health, family planning, special nutrition program, creche, school education, and the local administrative body, to obtain data on utilisation of these services.

Tools

Interview schedules were prepared to assess: (i) women's perception of their own status and roles; (ii) daily life schedule; (iii) community beliefs, customs and practices; (iv) perception of community set-up, needs and problems; and (v) utilisation of services.

Procedure

Results from the pilot study conducted by the investigator revealed the need to maintain an informal atmosphere during interviews, the importance of absolute familiarity with the interview schedule to facilitate flexibility during interviews and the crucial role of local leaders in establishing rapport with the villagers. The study was conducted in 2 phases, over a period of 3 weeks each, during which period the investigator stayed in the village itself.

Data were collected through semi-directive interviews, which were supplemented by field notes of incidental observations and informal talks. Before and during data collection, the community members and the women respondents were briefed on the purpose of the study. Since recording the interviews verbatim made the women self-conscious, detailed notes were prepared after the completion of each interview.

Analysis

The data were analysed qualitatively as well as quantitatively to obtain information regarding the community setting, the status of women in the community, and women's participation in utilization of services. Quantitative analysis of the data involved calculation of frequencies of responses to the questions in the interview schedules.

Results and Discussion

The SC/ST population of Rustampura resided in its outskirts, a fair distance away from the residence of the higher castes. The literacy level, especially of womens was particularly low and agricultural labour formed the major occupation of the SC/ST population.

Understanding the Status of Women in the Community

The over-all status of women was assessed in terms of the following aspects: decision making; household and non-household work; children; fertility and family planning; and family relations and self perception.

In terms of **decision making,** it was observed that household decisions came under the women's domain, decisions pertaining to money expenditure and credits were the joint responsibility of husband and wife, and those relating to land and property the joint decision of the family in consultation with elders. Women's participation in village level decisions was practically non-existent. In case of difference of opinion in decision making, the eventual outcome was in favor of men. The fear of husband's wrath forced most women to concede.

In terms of **household and non-household work** the invisibility of women's contribution was apparent. The burden of work was dependent on the agricultural cycle. Bringing up **children** in a rural set up was the joint responsibility of both the parents. Though children were considered as assets in the family, boys were valued more than girls. Aspirations for boys centered around a good job, education, and general good life and those for girls around marital happiness and competence in household work.

Analysis of responses to questions under the section of **fertility and family planning** revealed a direct relation between fertility and status of women. The women were found to be 'ready' to adopt small family norms, but only after the birth of at least one son, and when survival and security were ensured. Traditional birth control measures, like abstinence, local herbs and breast-feeding were used and the women found it difficult to use other family planning measures without their husband's consent.

It was found that on the whole an open communication existed between the husband and wife. However, inspite of the amount of work (both household and non-household) done by the women their **self-perceptions** were negative and the superiority of males was accepted as inevitable.

Birth of sons figured high in women's positive memories. A rise in their status was perceived by the women as contingent upon self and a fall in status as beyond their control.

Women's Participation in Utilisation of Services

The health and medical care services provided by the Government sub-centre and private medical services were not utilized due to various misconceptions (like iron and folic acid tablets being "heat-producing") and the inconvenient location and distance of the health sub-centre (for the Govindpura community). **Education and literacy** of females was given less importance because of perceived irrelevance of education for girls, the enforced responsibility of household work and in view of cultural constraints.

The women did not utilise the **child care services** provided in the form of a creche due to the misconception that it was an educational institution meant for children of better-off families, and an uneasiness about sending their children away from the security of community premises.

References

Saraswathi, T.S. & Gupta, R. (1985). Educate a woman and you educate a family. **Perspectives in Education.** L (1), 49-54.

Saraswathi, T.S. & Gupta, R. (1985) Fertility, family planning and the status of woman. **The journal of Family Welfare,** 32(1) 16-24.

VI. PHYSICAL DEVELOPMENT

A. SECULAR TRENDS

B. NUTRITIONAL STATUS

A. SECULAR TRENDS

39. Verma, M. (1982). **Baroda newborns and secular trends (weights, heights and ponderal index).**

The present study aimed to (i) find the existence of secular trends, if any, in birth weight, height and ponderal index; (ii) note the sex differences in secular trends in birth weights and heights; (iii) establish the distribution of birth weight, height and ponderal index in terms of economic status; and (iv) determine the nutritional status of the newborns based on ponderal index.

Method

Sample

Since secular trend is visible only at an interval of 10-15 years, the secondary data (n=542) for comparison was obtained from an earlier study by Satyanandam, 1965 [Refer Saraswathi, T.S. (1982), Compendium of Researches : Vol-I]. The sample for the study comprised of 503 normal, full term, live born, single and normally delivered babies in two hospitals of Baroda city. The infants were predominantly from Hindu families and represented the low, lower-middle and upper middle classes.

Tools

The tools used for measuring the newborns included (i) A beam scale weighing machine in lbs., and (ii) an infantometer measuring height in cms. A modified version of Kuppuswamy's socio economic scale (urban revised, 1976) was used to classify the sample according to comparable figures for 1965 and 1981.

Procedure

The data were collected between 28th September, 1981 to 1st February, 1982. All newborns were measured naked, within 24 hours of their birth. Weights of the newborns taken in lbs. were converted to kgs. by using a standardized lbs./kg. conversion table.

The 1965 and 1981 data were made comparable with the help of Kuppuswamy's 1976 revised income groupings and the consumer price index for the relevant years.

Data Analysis

Based on the birth weight and height of the newborn, ponderal index for each infant was calculated.

$$\text{Ponderal Index} = \frac{\text{Birth weight in gms}}{\text{cube of crown-heel length in cms.}} \times 100$$

The means of birth weight, height and ponderal index was calculated for the total sample and for the three income groups; and means of birth weight and height were calculated for males and females. These data were then compared with that of Satyanandam's study. Percentile position of the infants with reference to ponderal index was determined.

Results and Discussion

When data from the present study and Satyanandam's study were compared, it was seen that mean birth weights showed a tendency in the negative direction for the secular trend with a difference of .169 gms. (significant at .05 level). Mean birth heights showed a tendency in the positive direction and mean value of the ponderal index a tendency in the negative direction for the secular trend. However, these differences were not significant. This predominantly negative direction has been explained on the basis of deteriorating environmental conditions (e.g. poverty, prevalence of infectious diseases, crowded living conditions, undernutrition etc.)

Secular trend in newborn weights was observed to be significantly negative and that for newborn heights to be non-significantly positive for both the sexes.

It was observed that the lower income group newborns ranked lowest in birth weights and heights as well as in ponderal index. The general trend for the mean measurements to increase as the economic status increased, confirmed the direct relationship between socio-economic status and the ability of parents to provide the growing child with the necessary nutrients, health care and living conditions to support optimal growth. No definite sex differences in secular trend for newborn weights and heights were observed. This is in direct contrast to Satyanandan's results which showed definite sex differences in secular trend.

Determination of the percentile position of infants in terms of the ponderal index aided in the categorization of newborns in well nourished, normal and malnourished groups. The results revealed that with an increase in income, there was a decline in the percentage of malnourished newborns and an increase in the percentage of well nourished newborns.

B. NUTRITIONAL STATUS

40. Divakaran, M. (1983). **The assessment of the nutritional status of the under five year old children of Panchmahals, Gujarat.**

As a part of a departmental project for finding out the utilization of services and programs of government and voluntary agencies specifically catering to child welfare, the present study aimed to assess the nutritional status of tribal children under five years of age and identify the diet intake of the children by obtaining background information of their families and studying their anthropometric status and diet pattern. An additional objective of the study was observing sex differences, if any, in nutritional status of the tribal children.

Method

Sample

The sample comprised of 180 children from 15 villages of Limkheda

Taluka, Panchmahals, in 6 age groups of 0-6 months; 7-12 months; 13-24 months; 25-36 months; 37-48 months; and 49-60 months. Each age group consisted of 30 children, including an equal number of boys and girls.

Tools

The data collection for the study was done with the help of: (i) an interview checklist developed by the investigator encompassing four components of socio-economic aspects, child health, family composition and family planning practices, and diet patterns; (ii) a flexible steel tape caliberated in centimeters for measuring height, head, mid-arm and chest circumference; (iii) beam balance scale and bathroom scale for measuring weight of infants.

Procedure

The interviews were conducted informally. Information pertaining to child health and maternal diet was obtained from the mother and that pertaining to land and income from the man of the house. For taking anthropometric measurements standard techniques were utilized. Information on diet pattern was obtained by questioning the mother as well as through observation.

Analysis

The nutritional status of the child was assessed by comparing the recorded weight with the reference measures as recommended by the Pediatric Council of India. The two extreme grades of malnutrition, i.e., normal and severely malnourished were compared in terms of the background factors affecting the nutritional status.

Results and Discussion

Results showed that a majority (92%) of the tribals followed the traditional occupation of agriculture with the education level of a majority of fathers being very low. A large majority (86%) of the respondents showed a preference for large families because of fear of infant mortality.

During pregnancy and lactation, the mothers did not have any special diet. Ninety-four percent of the deliveries were done by the local midwife. The main reasons for infant mortality were diarrhoea (44%) and still-birth.

A study of the diet pattern of the tribals revealed that maize was consumed mostly with either vegetable or dal. The majority of tribal children were breast-fed upto 1 1/2 - 2 years and the most commonly administered food at weaning was 'rotla'. The diet pattern of the children above three years was qualitatively similar to the adult's diet pattern. They followed a two meal pattern, with milk figuring very low in their diet.

The nutritional status of the tribal child was judged by measuring height, weight, head, chest and mid-arm circumference. Weight was observed to be the most sensitive measure of nutritional status. While 20% of the tribal children were found to be normal as regards their weight, 80% of the tribal children were found to be normal as regards height. No sex differences in the parameters, except for weight, were observed. With increase in age, a decline was observed in the children's nutritional status.

A comparison of the background factors of malnourished and normal children showed that the father's education and income were most clearly associated with the nutritional status of the children.

Vishal Offset, Baroda 19
✆ 64894